

UC-NRLF



\$B 37 623

YC 24076

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA.

Class

Black of 1st

REMARKS

6004

ON THE PRODUCTION OF THE

PRECIOUS METALS,

AND ON THE

DEMONETIZATION OF GOLD

IN SEVERAL COUNTRIES IN EUROPE.

BY

MONS^R. LEON FAUCHER.

TRANSLATED BY

THOMSON HANKEY, JUN.



SECOND EDITION, REVISED.

LONDON:

SMITH, ELDER, & CO., 65, CORNHILL.

1853.

HG277
F3

Zachary
R. E. Cowan

TO MONS^R. LEON FAUCHER.

MY DEAR SIR,

I have fulfilled the promise I made you a few weeks since, by translating, I hope intelligibly, your remarks on the subject of the Production, &c., of the Precious Metals, which I read first in the August number of the "*Revue des Deux Mondes*," and which have been subsequently published, somewhat amplified, in the reports of the "*Académie des Sciences Morales et Politiques*." Since the date of your remarks, the production of gold in Australia has been greater than you anticipated; recent reports estimate the amount shipped, or ready for shipment, from thence, at not less than £8,000,000 sterling; at which figure, I think, we may safely place the produce of 1852.

A gentleman who was with me a few days since, just arrived from Victoria, told me that the gold diggings at Bathurst were nearly at an end, and that he did not believe that any more gold would be shipped from Sydney. Although Sydney is only one of the ports of Australia from which gold has been shipped, this would appear to confirm your views, that the first gatherings cannot fairly be assumed as data on which to found estimates of future production: at the same time when we hear of so great an increase of production in other parts of Australia, I can hardly agree with you, that there is so little ground for alarm as to a depreciation in the value of gold, in consequence of these late discoveries. The effects of the production in Australia can hardly be felt at present, considering that the export of English gold coin has been, up to this date, I think, equal to the amount of gold we have received thence; but when the sovereigns lately shipped are found to be in excess of the wants of the community in Australia, and are re-shipped to this country, together with the produce of the gold workings between this and next summer, I cannot but believe that the supply in the market

of the world will be found in excess of the demand, and that ultimately a considerable and general alteration in prices will ensue.

I shall be very glad if I find that by this translation I have in any way contributed to increase the circulation of your remarks in this country. The subject is one of considerable interest, and I hope that you will, at no very distant period, give us some further observations, and let us know how far your first impressions have been then influenced by events which may have occurred subsequently to the present time.

I am, my dear Sir,

Yours very faithfully,

THOMSON HANKEY, JUNR.

London, 30th November, 1852.

*The Foreign Weights and Monies have been converted into English,
at the following rates.*

Dollars and Piastres, at	4s.
Thalers . . . „	3s.
Florins . . . „	1s. 8d.
Francs . . . „	25 to £1 sterling.

A kilogramme weighs nearly ^{lbs. oz. dwt. grs.} 2. 8. 3. 2. or nearly ^{grs.} 15,434 Troy.

Do. of gold at the standard value, viz. 77s. 9d. per oz. is
worth about £125.

Do. of silver at 5s. per oz. is worth about . . £8 0s. 9 $\frac{1}{4}$ d.

Do. of quicksilver weighs . . . 2·2055 lbs. avoirdupois.

Do. Do. is worth about . . 5s. 1 $\frac{3}{4}$ d. or 2s. 4d. per lb.

A Spanish marc weighs ^{oz. dwts. grs.} 7 7 22 $\frac{1}{2}$.

Do. of gold at 77s. 9d. per oz. is worth . . . £28 15s.

1 lb. of gold is equivalent to 46 $\frac{2}{10}$ sovereigns.

A poud is equivalent to 36 lbs. English, and worth about £1679.

The weights and measures not enumerated here are explained
at the foot of the page in which they occur.

REMARKS



ON THE PRODUCTION OF

THE PRECIOUS METALS,

&c.

FROM the commencement of the 19th century, gold appears to have been always esteemed in Europe above the price at which it has been legally fixed in relation to silver; the commercial value of the metal has remained on an average about 1 per cent. above its legal value. In England alone gold circulates as money: in those countries which have maintained a double standard, gold, rarely coined, became immediately an article of merchandize, and disappeared from circulation. Gold regions were discovered without restoring the equilibrium of value between the two metals. Civilization, in its development from historical times, has but realized the legends of ancient fables. Gold, from its importance and constancy of value, appeared likely to remain for ever the symbol and the essential agent of wealth.

In this regular course of the progress of the precious metals, a pause, or rather a deviation, appears to have occurred. Gold seems to be tottering in its monetary supremacy; the fortress appears to have succumbed in a paroxysm of alarm. Ten years ago, every one was frightened at the prospect of the depreciation of silver; during the last eighteen months, it is the diminution in the price of gold that has been alarming the public. Some countries, which, but a short time since, were but too anxious to attract and retain gold in circulation, even at great sacrifices, have already shown a feverish anxiety to banish it altogether.

Holland took the lead in this movement, and in July, 1850, demonetized the gold 10-florin piece and the Guillaume. Portugal has partially followed this example, by prohibiting any gold to have a current value, except English sovereigns. Belgium, which in order to increase its gold circulation, had given a legal value to our 20 and 40-franc pieces, and had struck, in 1847, a mixed coinage of gold and base alloy, has demonetized its gold circulation, both home and foreign. Russia, by a ukase of 29th December, 1850, wishing to maintain the former equilibrium, has prohibited the export of silver. The French Government itself, struck with the novelty, and the sudden change, issued a commission for the purpose, as the Minister of Finance stated in his minute of the 14th December, 1850, of examining

the questions connected with the simultaneous use of the precious metals, gold and silver, as a circulating medium of value.

From public authorities, alarm has spread to private interests, and the price of the precious metals has experienced in European markets a very sensible disturbance in value. In the space of only a few months, the premium of gold has given way to a reaction, only checked by the tariff. From 1st July to the 25th December, 1850, the price of English sovereigns in Paris has fallen about 2 per cent. On the Amsterdam Exchange, the fall in the price of gold, in the same year, amounted to 4 per cent.; at the same time silver rose in London almost as much (from 4s. 11½d. the ounce, to 5s. 1½d.); the relative value of gold to silver, which our laws had fixed at 15½ ounces of fine silver to one of pure gold, and which the constant premium on gold in Europe had raised in the Spanish tariff to 15¾, fell to 15¼ in Holland, Belgium, and Hamburg; in all places where gold, from having been demonetized, had become a mere article of merchandize; almost realizing, in fact, the tariff of Russia, a country where the abundance of gold and the scarcity of silver had induced a legal relative value of 15 to 1.

However great the present depreciation of gold, the depression appeared likely to increase still further, and the gloomy forebodings of the press have

added to public alarm. Newspapers of all parties, and of all countries, prophesied that, under the combined influence of California and Siberia, the value of gold would soon fall to nine times that of silver. Whilst crowds of emigrants were forcing their perilous way across the Rocky Mountains, or doubling, for economy, Cape Horn, or, in their impatience, taking the shorter but dearer passage by Panama, hurrying on to the capture of the golden fleece, this very treasure which they were unduly *appreciating*, was becoming as unduly *depreciated* in Europe; the article, which but six months before bore the greatest fixity of value, seemed rapidly undergoing an important change, and to the *Auromania* of ages, an *Aurophobia* appeared to be succeeding. England alone has shown no sign of fear. During the period of continental alarm, the Bank of England was not afraid even to check the export of its gold; as in the beginning of 1851, the directors raised the rate of discount from $2\frac{1}{2}$ to 3 per cent., and almost immediately the exchange turned. The pound sterling, which fell for a short time to 24 fr. 70 cents., equal to a fall of 2 per cent., rose in a few days to 24 fr. 95 cents.; it oscillates now between 25 fr. 35 cents., and 25 fr. 45 cents., which is equal to a premium of $\frac{1}{2}$ to $\frac{3}{4}$ per cent. upon gold. Again, the mint of Paris, which received gold by millions in December, 1850, and January, 1851, has seen this influx slacken until its weekly receipt now scarcely equals its former daily supply.

At the present moment, the oscillations of the market seem to have terminated; a calm has succeeded the storm, and the value of the precious metals seems to be in almost a normal state. The present moment, then, appears to be a fitting one to examine if the late disturbing causes were of an ephemeral nature, or whether they are likely to be permanent in their effect.

On this important subject, the French Government, which at first appeared ready to attempt an immediate solution of the question, did not hesitate to recognize the necessity of more profound examination. In the *Moniteur* of the 15th January, 1851, it is stated, "that the commission of 14th December, presided over by Mr. Fould, Minister of Finance, for the examination of the subject of money, is of opinion, that the late depreciation in the value of gold has been produced by causes of an accidental nature, which are beginning to be less sensibly felt; that influences of a permanent character bearing upon this depreciation cannot at present be sufficiently ascertained; and in such a state of affairs it is necessary to have precise information as to the production of the precious metals in California and in Russia; and that with its present knowledge of facts, the Commission is of opinion, that there is no ground for a modification in our monetary system."

This determination was a wise one, and subsequent events have justified it; while on the one hand

gold has again risen to nearly its former value, and on the other, the discovery made in 1851 of rich deposits of gold in Australia, renders the subject worthy of further investigation; the present seems a suitable opportunity for the renewal of a controversy by no means exhausted.

In default of official documents, we have the stories of the adventurer, and the statistics of commerce. Sufficient light appears to come from the north, the south, and the west, to enable us to form some opinion of the results of the general movement regarding the precious metals. I would add, that we can approach the subject now, freed from some of the questions which appeared to encumber it; the trade in the precious metals appears to be again in its natural channels. The phantom of rise or fall does not appear to be materially affecting trade: quite lately, to prevent the export of gold, the Bank of France raised the premium for purchase. In London and in Paris, the metallic reserves are full. The Bank of England has above ¹500,000,000 francs, and the Bank of France above ²600,000,000 in their vaults. The import of the precious metals goes on but slowly. Nothing opposes, then, such a patient and careful examination of the subject as can alone satisfy the inductions of science.

¹ £20,000,000

² £24,000,000

I.

The value attached to the precious metals in their character of money, is not of an arbitrary nature. Neither governments nor councils can change it at their will and pleasure. The power publicly possessed in this respect is but the organ of facts, which it submits to and proclaims as law. The head of the Government stamped on the coin creates a value only by the declaration of its intrinsic weight and fineness ; but the price of the gold and the silver is exactly that of their commercial value in exchange. In this consists the stability and the regularity of the circulation of money.

The cause which determines the value of the precious metals is the same as that which affects the price of every other article of merchandize ; the supply and the demand—the comparative abundance or scarcity of gold or silver in the market. The larger the metallic supply, the smaller value will it bear ; its commercial value will vary in exact proportion to the increase in quantity. On the other hand, the smaller the quantity of money in circulation, the larger will be the value attaching to each separate piece ; a smaller quantity of such money will then suffice to buy a larger amount of goods, and goods are said to be cheap—or what if

in effect the same, money,—may be called dear. This money, in the time of Charlemagne, possessed a power eleven times greater than at present---that is to say, it was eleven times more scarce. It is well-known that the discovery of America, in overpowering with a fresh supply of the precious metals the metallic circulation of Europe, brought about a sudden and large depreciation of their value, which, notwithstanding a variety of oscillations, has been generally maintained to the present time. Not only does the state of the market mark the value of *gold* and *silver* with reference to other articles; but there is positively no other base on which the comparative value between the two metals can be determined, but the *abundance* or *scarcity* of either.

The relation between gold and silver is variable in its nature. In vain has Garnier, the commentator on Adam Smith, attempted to establish his position, that the value of gold in ancient times differed little from its value in our days; and that it then represented, according to Herodotus, and under Darius in Persia; and again, during the time of Plato, in Greece, weight for weight and purity for purity, about fifteen times the value of silver. Criticism has not failed to demolish entirely this ingenious but frail hypothesis. It has been clearly demonstrated that silver did not hold in ancient days, the important place it has obtained

in ours, and which has subsequently rendered it the all-powerful agent of circulation.

When we seek to examine minutely the various monetary changes which have occurred, and to lay hold upon some principle to guide our inquiry, we quickly recognize the fact, that the difference in value between gold and silver increases in proportion to the development of civilization and industry. It is not without some show of reason, that mythology, transporting the analogy of the physical into the moral world, made the age of silver succeed that of gold. Historically, in fact, the discovery of and the working of gold preceded that of silver. Gold is almost always found either pure or mixed with silver. In searching the beds of rivers and streams, it has been obtained by the mere process of washing. This work is within the reach of the rudest state of society. It appears like a treasure spread over the surface of the earth, under the very feet of the first occupier of the soil. Silver, on the contrary, is embedded in rocks of primitive formation, and is seldom found near the surface of the earth; its extraction requires a combination of science, machinery, and capital. It is the work of a state of civilization already far advanced and firmly established.

In almost every age, whatever its social position, the use and the value of gold has been known. From

India to Iberia, and from Ethiopia to the Poles, there is not a race which has not attempted to discover this source of wealth on its surface. What country has not had its Pactolus! What Prince or Satrap has not been a gold collector, like Midas or Cræsus! The luxuries of ancient monarchs appear to prove an abundance of metallic treasure, which has been subsequently unequalled, but the sources of the supply have faded away in their turn. Dureau de la Malle observes, that from the death of Alexander, the golden sands of Asia and Greece appear to have been exhausted; those of Gaul and Spain seem to have been abandoned after the fall of the Roman Empire. Gold has long since disappeared from the surface of the older inhabited countries; there is only now to come, in quantities of appreciable amount, or capable of affecting the circulation, the produce of those countries which have been unknown to European commerce, or which have been discovered in modern times.

Referring to history, we find that the employment of silver as money is of no very ancient date, and that it was introduced as a medium of exchange, not by conquerors, but by people of industry and of commerce. It would be sufficient to cite the Phœnicians, those planters of colonies,—the Athenians, and the Carthagenians. On the first discovery of America, silver money was found in use amongst only two nations holding any political

position—Peru and Mexico. And again, if silver at a later period has taken the place of gold in circulation, it has been maintained with more regularity and permanence. The mines---from wherever it has been extracted, penetrating into and ramifying throughout the bowels of the earth,—are almost inexhaustible. It is thus shewn that the production of silver is found to continue where that of gold is at an end, and hence the variations which past experience has shown to exist in the relative position of the precious metals.

The learned researches of Boeckh, Letronne, Humboldt, Jacob, and Dureau de la Malle have thrown much light on the causes, and on the importance of these monetary oscillations. They agree in the admission, that originally the value of silver in some countries has equalled, if not exceeded, that of gold. The laws of *Manon* state a value of gold as $2\frac{1}{2}$ times that of silver. M. Dureau de la Malle considers that between the fifth and sixth century before our era, everywhere, excepting in India, the relative value of gold to silver, had been 6 or 8 to 1, as it was in China and in Japan at the end of the last century. It has been found to have been as 10 to 1 in Greece, in the time of Xenophon, 350 years before the Christian era; and even 100 years later, the treaty between Rome and Etolia proves a similar ratio.

In the present day, the discovery and the working

these new metallic stratifications are the only causes which can materially change the relative value of the precious metals. Formerly, conquest, by which one nation became rich at the expense of another, or the pillage of those great reservoirs of money called public treasures, throwing suddenly vast sums of money into circulation, could not fail to depreciate either one or other, if not both, of the precious metals. It was thus that the conquests of Alexander, opening the gates of the East, inundated the Greek world with the precious metals, which were lowered in value by their abundance, and dissipated from their very excess. After the capture of Syracuse by the Romans, silver, the foundation of the treasure they had seized, fell suddenly in price, so that seventeen pounds of silver were valued at one of gold. A little later the relative price was as 12 to 1, when Cæsar, having plundered the two milliards contained in the public chest, so reduced the value of gold, which then predominated, that the proportion fell to 9 to 1. Under the Roman Emperors, the production of gold began to slacken, —the progress of mechanical science, on the other hand, gave a constant impetus to the working of the silver mines of Asia, Thrace, and Spain. The comparative value of the two metals again changed; it was as 18 to 1 in the time of Theodosius the Younger, 412 years after the birth of Christ.

At the commencement of the fall of the Roman Empire, in the 4th century, the value of the pre-

cious metals approached that of our own days. The invasion of the barbarians, in dispersing and dissipating the accumulated treasures of the West, destroyed for a time the industry required for their renewal. Money, on account of its scarceness, acquired an extraordinary power; the price of every article fell, or, in other words, the value of silver rose to a most extraordinary degree. Not only did the value of money and of the precious metals increase in that long dark night of the middle ages, but the relative value between silver and gold, which had been established by the progress of industry, again changed. The value of gold, in relation to other commodities, was preserved longer than that of silver, owing to its greater general value, and to its being the less destructible metal; and also because its supply was fed by the washings of the golden sands; a fit occupation for the knowledge and tastes of an ignorant people. The working of the silver mines, on the other hand, being a work befitting a civilized and scientific people, was naturally interrupted, and languished during a period of spoliation and endless warfare. Hence, as we may suppose, arose the scarcity, both relative and absolute, of silver; the comparison with gold remained at 11 and 12 to 1 from the 9th to the middle of the 16th century. It required the excessive and sudden abundance, springing from the working of the mines of Potosi,

and in Peru, and of Zacatecas in Mexico, to reduce the proportion to 14 and 15, the average rate at which it remained in Europe until the end of the last century.

II.

A change in the relative production of the precious metals does not necessarily alter their monetary value. In order to create an alteration in the relative values of gold and silver with the quantities annually produced, the disturbing cause must be of a somewhat permanent nature. Moreover, it is necessary to examine, in connection, either with a greater or less production, the causes which might add to or diminish these results; such as expenses in working, the varied wants of consumption, and the greater or less destruction of coin by wear and tear, &c.

Monsieur de Humboldt remarks, that during the ten years, from 1817 to 1827, there was coined in Great Britain, above ¹1,294,000 marcs of gold; that is nearly one milliard of francs, and more than ²100,000,000 francs per annum, without any influence having been produced by such extensive purchases on the relation of gold to silver: the pro-

¹ lbs. 797,629 = £37,209,423

² £4,000,000

portion, which was as 1 to 14·97, never exceeded 1 to 15·60; or shewing a rise of not more than $4\frac{2}{10}$ per cent. Such was the case when England, which for above twenty years had had only a paper circulation, re-established a metallic currency, and attracted the coin and the bars of gold dispersed throughout Europe. During these ten years she absorbed, or nearly absorbed, an amount of gold which perhaps equalled the production of the whole world, and certainly exceeded the import of gold, during that period, into all the great commercial depots in the civilized world. It would not enter into our subject to examine at what sacrifices England made this monetary revival; but the equilibrium once restored, and the empire of Britain having placed herself in harmony with the rest of Europe, it does appear wonderful that it did not cost more than a premium of 4 per cent. to have attracted a quantity of gold, probably equal to the half or one-third of that possessed by the whole of Europe. And the wonder increases when we remember, that the Mint of London, which in 1814, 1815, and 1816, had not coined a single sovereign, issued at once, in 1825, £9,520,758 sterling (about 240,000,000 of francs), which must have been consequently abstracted from trade in the course of a few months. Political commotions brought about other variations in the price of the precious metals. It is well known, that on the news

of the landing of Napoleon in 1815, gold rose 10 per cent. in London.

To explain how this sudden collection of gold, effected by Great Britain with as much perseverance as vigour, did not bring about a general crisis; it has been said, and not without reason, that the quantity of the precious metals now existing in the shape of money, rendered the oscillations in its production and supply as money, less sensibly felt. It should be recollected, that if the metallic values were so greatly depreciated by the discoveries of America, this state referred to the existing condition of Europe, exhausted both of silver and gold. The difference thus exhibited between the two periods is very evident; but it does not appear to be sufficient to account for the facility with which the circulation may increase in the present day, without affecting the price of silver or gold. It may be as well to add, that this movement, which appears to convey life throughout every artery of commerce, is not fed now solely, as in olden times, and during the middle ages, by the precious metals. Metallic money now forms but a small portion of the total circulation, if we take into account the mass of bank notes, bills of exchange, drafts and bankers' cheques, which complete the amount of a circulating medium of exchange; this, at the present day, taken as a whole, is something almost indefinite: it appears to defy all calculation; and we might almost say that the excess in the pro-

duction of gold and silver now need not necessarily produce more influence than the waves of the sea on the permanent level of the ocean.

At the same time that the depreciation of gold and silver under any general form becomes less probable, the increasing facility of communication, and the greater mutual dependence of nations in matters of credit, renders any great local difference in the value of money more improbable. Whenever the precious metals become in excess in one country, the surplus quickly reaches its neighbour. Let a sudden scarcity of food, or any other cause, create a drain of specie, the consequently increased value of money will soon draw back that which has been exported. The cost of transport, and the premium of insurance of gold, are the limits of the variations in the rates of exchange; and the charges are being diminished every day, thanks to railroads and steam communications. Before the wonderful progress in the development of industry from the commencement of the nineteenth century, we have seen the changes occurring at different periods, in the relative production of the precious metals, without any corresponding alteration in their relative values. At the close of the fifteenth century, it is true, that America, furnishing nothing but gold, and this metal having accumulated in Spain, Queen Isabella of Castile was forced to alter the relative standard of gold

and silver. After the first half of the 16th century, the production of gold having ceased to preponderate, and silver being imported in great abundance, the value of the inferior metal underwent such a depreciation, that the governments of Europe, yielding to the force of circumstances, changed its relative legal value; but with these two exceptions in the monetary laws, one purely local, and the other European, we observe the production of each metal extend and diminish alternately, without any relative alteration in value of sufficient importance to attract public attention.

“From the year 1645 to the commencement of the 18th century,” says M. Michel Chevalier, “silver took the lead in a most remarkable manner. Then occurred the bright days of the mines in Potosi, and the production of silver exceeded that of gold, weight for weight, in the proportion of 60 to 1; after that, and without any diminution in the produce of silver, came the glorious time for the Brazilian gold mines. Simultaneously appeared the auriferous regions of Chico, Antioguia, and Pepayou. The commercial world received from America 1 kilogramme¹ of gold for every 30 kilo-

¹ A kilogramme is equal to about 2 lbs. 8 oz. 3 dwts. 2 grs., and is worth about £125; 30 kilogrammes would therefore weigh about 80 lbs. 3oz. 20 dwts. 12 grs., and would be worth about £3750.

grammes of silver. Thus passed the middle of the 17th century. Then the silver mines of Mexico put forth all their splendour, and the proportion increased to 40 to 1. The Brazilian mines began to diminish, whilst those of Mexico continued to increase in production; and, at the beginning of the next century, silver exceeded gold in the proportion of 57 to 1. In 1846 the production of silver still continued to predominate, and we are now at the proportion again of about 40 to 1."

Humboldt's calculations differ but little from those of M. Michel Chevalier. This great authority considers that the import of gold until the first years in the 18th century, bore the proportion to silver of 1 to 65. Let either of these suppositions be true, there can be little doubt, that the relative weight of supply of the two metals varied by one half, without any serious alteration in their relative price; which surely proves that gold was essentially required, and that the increase of production did but fill up the gap, which, as far as the 18th century, the progress of civilization and of luxury had created, without an adequate means of supply.

In ancient times, the relative value of the two metals appears to have been almost entirely governed by the quantities produced and brought to market. A pound of gold was worth eight or ten pounds of silver, according as the quantity brought to market varied in the like proportion.

The simplicity of commercial interests, in a state of society when neither luxurious arts or industry were thought of, offered no inducements for the collection of gold or silver for their use as money, excepting on account of their relative scarcity; but when fighting ceased to be the principal occupation of mankind, and labour began to be held in some estimation, an end was put to this patriarchal state: if the people lost their primitive simplicity, the relation of supply and demand no longer depended exclusively on the proportionate production of the two metals; other causes affecting a rise and fall began to operate on prices.

When the precious metals were nearly absorbed in the supply of money, their commercial value had no other element to influence an alteration than the requirements of circulation; the monetary value governed the commercial price. But, at the present time the contrary is the case: the greater the degree of civilization, and the greater the increase of a taste for luxuries, the more does the demand for the precious metals for other objects exceed the want of them for coin. Mr. Jacob, whose work on the precious metals appeared in 1831, places a value of ¹149,000,000 francs on the gold and silver annually used for articles of jewellery and plate in Europe and America.

¹ £5,960,000

During the last twenty years the progress of luxury amongst the industrious and commercial nations of the world has been enormous. The moveable wealth of France and England has made prodigious accumulations. What family is there so poor as not to have some article of plate? Gilding is no longer confined to the decorations of temples and palaces; it is found in the most humble cottage. To what a length may it not reach if the taste should increase for gilding the dresses of ladies, and for covering the uniforms of our men with gold or silver lace?

On the whole, then, it appears that the demand for gold and silver, as articles of commerce, is likely to exceed the demand for the precious metals solely for use as money. This is a new point; and we must not lose sight of it in endeavouring to appreciate the effect which an increase or diminution in the production of the precious metals may have, both on their price and on their relative value.

Without noting the variations which have occurred from one century to another, in the production and in the importation of gold and silver, in order to recapitulate the quantities of the precious metals which America has poured into the European markets in 318 years, from the discovery of Hispaniola to the revolution in Mexico, M. de Humboldt considers the production of gold to have

been ¹2,381,600 kilogrammes, and that of silver ²110,362,222 kilogrammes: making a total value of about ³32 “milliards” of francs: the weight of gold imported represents about 1-47th of that of silver. It does not appear probable, that the produce of gold in other parts during these three centuries has materially altered these proportions. Admitting that when first the Mexican revolution retarded the working of their silver mines, the amount of coined money throughout Europe represented a value of ⁴8 “milliards” of francs, of which ⁵6 “milliards” were in silver, and ⁶2 “milliards” in gold, the relative quantity in weight would still have been as 47 to 1; and yet the relative monied value, thirty years since, varied in Europe between 1 to $14\frac{1}{2}$, and 1 to $15\frac{3}{4}$. Thus, in the value of the precious metals, the difference was three times less than in their weight.

Nothing is more difficult in matters relating to money than to present statistics which may be considered as an approximation to truth. It would appear that as gold and silver are used as the denominators of value, generally, throughout the world, all the phenomena connected with their production and circulation ought to be noted with the greatest precision: they ought to be the points to which the

¹ lbs. 6,381,530 = £297,700,000

⁴ £320,000,000

² lbs. 295,717,106 = £887,151,318

⁵ £240,000,000

³ £1,280,000,000

⁶ £80,000,000

attention of statisticians should be "*par excellence*" directed. What can be more important, in an economical point of view, than to establish a regular scale, indicating the rapidity of every movement connected with the subject, and acting as a gauge of its extent?

Divers causes appear, however, hitherto to have prevented such a desideratum. In the first place, gold and silver producing countries have generally been in a rude state of civilization; and as unable to apply rules for the public weal, as to employ machinery to aid their industry. Thus, even in the registry in Mexico under the Spanish rule, of all the money coined at their mint, and for ascertaining the amount produced in the mines by the proportion of the tax due to government, which ought to be levied thereon by the hundred-weight,—it is absolutely necessary to take into account all that quantity which escapes the vigilance of the tax-collector, and which is either sent into the interior, or exported clandestinely.

What is the sum of the precious metals really produced at any given time? What is the proportion of such production which, when exported, acts as a regulator of the prices in Europe? How are the channels formed which sometimes direct the stream of commerce towards the east, and sometimes towards the west, in the distribution of the metallic wealth of the world? All such

problems, as regards the past, must probably remain unsolved. The enquiry becomes more easy when referring to our own times; but even then large allowances for incorrectness of data must necessarily be made.

At the beginning of this century, according to M. de Humboldt, gold and silver were imported annually into Europe in the relative proportions of about 1 to 55; that is, ¹15,800 kilogrammes of gold to ²869,960 kilogrammes of silver. M. Michel Chevalier, stating, not the import but the production, calculates it at ³23,700 kilogrammes of gold against ⁴900,000 kilogrammes of silver, or in the proportion of 1 to 38; but the gold of Africa and Asia, comprised in this statement, never really found its way into European markets except in the smallest quantities, and in such amounts as could have no appreciable influence on the commercial prices of the metals. From 1810 to 1830, according to Mr. Jacob, the produce of America diminished by one half. As the reduction refers principally to silver, that is to say, to those mines which required both capital and labor, it is fair to assume that, at least during the first part of this period, the relative proportion of gold to silver would have increased; but we have no means of verifying figures which

¹ lbs. 42,336=£1,975,000

³ lbs. 63,504=£2,962,500

² lbs. 2,331,070=£6,923,210

⁴ lbs. 2,411,562=£7,234,686

appear to justify what would otherwise rest solely on the analogy of the case.

In 1847, when the general working of the auriferous region of the Oural Mountains was at its meridian, M. Chevalier considers the annual production of gold throughout the world to have been ¹63,250 kilogrammes, and that of silver ²875,000 kilogrammes. This would be ³25,000 kilogrammes *less* of silver, and ⁴30,000 kilogrammes *more* of gold, than at the beginning of the century. At these figures gold stands in reference to silver as 1 to 14. The return from these gold regions appears to have been greatly over-estimated. I find in a table, published in the "*Times*" of May, 1852, statements which appear to be founded on correct data, and which bring the production of gold up to 42,800 kilogrammes---that is, to ⁵147,400,000 francs.

This result, then, is remarkable. The 17th century produced 1 lb. of gold to 60 lb. of silver. In the 18th century the production was as 1 lb. to 30 lbs. At the beginning of the 19th century silver was again abundant, and appeared in quantity as 1 to 50. Towards the year 1847 the production of gold again increased, and the relative proportions were as 1 to 20. The development of the Siberian mines, which

¹ lbs. 169,479=£7,906,250 ³ lbs. 66,989=£200,967

² lbs. 2,344,574=£7,033,792 ⁴ lbs. 80,386=£3,750,000

⁵ £5,896,000

has so materially changed the relative production of the two metals, has produced no sensible alteration in price. Will it be the same with the wonderful discoveries in California and Australia? To solve this question, it will be desirable to examine accurately the actual state of the production of gold and silver throughout the world.

III.

Before entering into this inquiry, it may be worth while to examine a circumstance of late occurrence, relating to monetary statistics, which has given rise to some discussion, but which has not yet been explained; I allude to the fall in the price of gold, and the corresponding rise in that of silver, throughout Europe, towards the end of 1850 and the beginning of 1851.

At that period Russia had rather less gold than usual to exchange against the produce of the West; and since 1847 the working of the Altai mines had been on the decline: at all events, the government did not appear inclined to allow gold to be exchanged; for in 1848 and 1849 its export had been forbidden. In 1850 the state of the exchanges did not admit of an export of gold, and a part of the $4\frac{1}{2}$ per cent. loan, contracted at that period by the Cabinet of St. Petersburg, was remitted to Russia, both in gold

and silver, from England. Doubtless, in spite of the prohibition, Russian gold found its way into other parts of Europe; it was calculated that between 1849 and the first few months of 1850, the great commercial towns in Western Europe must have received from ¹60,000,000 to ²70,000,000 francs from Russia; but this was not equivalent to the large sums paid for grain imported from Odessa and Riga during the famine of 1846-1847. There could have been no real increase in the metallic reserves of Western Europe during that period.

The same remark will hold good towards America. The import of gold thence in 1849 and 1850 could not have done more than replace the gold coin exported to the United States two years earlier, in payment of bread stuffs and salt provisions. A proof of this will be found by examining the official reports of the mints of the United States. These mints, which from the year 1834—that is, since the working of the gold fields of Carolina, had coined gold at the average rate of 2,500,000 dollars (³13,500,000 francs) per annum, in 1847 put into circulation about 20,000,000 dollars (⁴104,000,000 francs). At that time Californian gold was unknown: the rich “*placers*” of that country did not begin to kindle the gold fever, first in America, and

¹ £2,400,000

² £2,800,000

³ £540,000

⁴ £4,160,000

subsequently in Europe, until 1848. Californian gold, before it found its way to the Old World, had to supply the wants of the New. It is exported thence in the shape of eagles and double eagles, bearing the stamp of the Republic. In 1848 the coined gold in the United States did not amount to ¹4,000,000 dollars, and it did not exceed ²9,000,000 in 1849. With this small supply an export could not be expected. In 1850 the Californian stream began to flow, and the mint of the United States, having received gold dust and bars to the extent of ³40,000,000 dollars, coined ⁴32,000,000 (about 171,000,000 francs.) Supposing that the bulk of this coin had been exported to Europe, such a supply would but have restored the loss in the circulating medium which had occurred in 1846. We had exchanged our gold against grain; it was returned to us against the silks, wines, and other articles from France. The monetary disturbance of 1850 must not therefore be set down to the score of an excess of imports: the rich supplies from Siberia and California could then only have acted prospectively. The real cause is to be found in the measures hastily and somewhat rashly adopted by various European governments. To prevent future evil

¹ £800,000

² £1,800,000

³ £8,000,000

⁴ £6,400,000



they created immediate mischief; and, in order to shelter themselves from the risk of a future depreciation of gold, they directly produced it.

The crisis of 1850, thus examined, explains itself. On the one hand, silver, being annually taken out of the market by circulation, was not to be met with for other demands; on the other hand, gold, excluded by some governments from their circulation, flowed to those countries where it was still used as legal coin, and produced there, at least, a temporary superabundance. Then occurred the fall in the price of gold, and the rise in the price of silver; which together shewed a divergence of 8 per cent. between their former relative prices.

The explanation we have endeavoured to give appears to become clearer as we investigate further into the subject. Let us first examine the facts relating to the scarcity of silver. England, the principal market of Europe for the precious metals, witnessed, in 1850, a reduction of about ¹27,000,000 francs in the ordinary import. This applied principally to silver. Remittances from India, generally about ²20,000,000 fr., were almost completely stopped; those from Turkey and Spain were materially diminished. At the same time about £1,000,000 sterling was required to be shipped to India, and remittances were made by Messrs. Baring

¹ £1,080,000

² £800,000

to St. Petersburg of ¹8,000,000 to ²10,000,000 francs more, in silver. Germany and Holland required more than their usual supply. The Société Maritime of Berlin had imported silver to the extent of ³3,000,000 or ⁴4,000,000 thalers; so that, altogether, the import into England, having diminished in 1850 to the extent of about £1,000,000 sterling, the export had been in excess by about double that amount; reducing the metallic reserve by about ⁵75,000,000 francs. In addition to which, Spain and Russia, having prohibited the export of silver, the exchanges with those countries could hardly be operated upon effectively by the transmission of this kind of specie. It is easy, then, to conceive, that where no modification of the monetary laws had taken place, the premium on gold passed to a premium on silver.

This will explain the reason for at least a temporary abundance and depression in the price of gold, especially on the gold market of Paris. There is no ground for imputing the change to California, from whence the supplies were of little moment, until the end of December, 1850. England so far had only received silver from the United States, and the Californian gold, which had found

¹ £320,000

³ £450,000

² £400,000

⁴ £600,000

⁵ £3,000,000

its way by Panama, during the year, did not exceed, according to official returns, £682,000, or 17,050,000 francs. The Mint in London did not coin gold to a greater extent in 1850 than £1,492,000, or 37,300,000 francs, which is conclusive against any very large importation.

The market of Paris might have experienced a superabundance of gold, in consequence of the demonetization of gold coin in Spain and Portugal, and by the influx of Belgian and other foreign gold coin which had been circulating in Belgium; and it should be added, that England imported into France, for the payment of railway shares, probably to the extent of £1,000,000 sterling; but the predominating cause of the depreciation was undoubtedly the demonetization of gold in Holland, for that step had the immediate effect of cancelling at once the value of the gold coin there in circulation, and of throwing simultaneously an amount of gold on the commercial market, almost equal to the whole of the annual quantity of gold produced in California.

From 1816 to 1847 Holland had followed the example of France in admitting a double monetary standard. Gold and silver were both received in legal payment. The law of November 26th, 1847, altered this state of things; one standard only was allowed, and the silver florin of 3 grammes 450 milligrammes fineness, became the monetary unit:

this simplification of the national coin, however, was adopted in theory only; the application of the system was postponed.

The article 23 of the law decreed, that "before December 31st, 1850, other legislative arrangements should be enacted concerning the gold coins of five and ten florins, but that till these new arrangements were carried out, the gold coin should continue in legal circulation. The Dutch government might, therefore, retain the legal circulation of the gold coin, by applying to the States-General to prolong the period of the law of November 26th, 1847; but it preferred to carry out the system to its fullest extent. On August 6th, 1849, the government laid before the Assembly, the scheme of a law to "demonetize" the pieces of five and ten florins, and leaving to the administration the moment for its execution. At the same time the government demanded authority for the issue of notes to the amount of ¹30,000,000 florins, to buy in the gold coin, which although not in legal circulation, might yet continue to serve as payment at its conventional value.

In the "*Exposé des Motifs*," the Minister of Finance, M. Van Hall, acknowledged that the depreciation of gold would not be immediate. "We must examine the question," he said, "in order to know

¹ £2,500,000

whether the proportionate value of gold and silver has undergone much variation in consequence of the discovery of the Californian mines. The government is of opinion that as yet this is not the case. In fact, a document communicated to the Assembly proves that the proportion between gold and silver of 1 to 15·60 has been found to exist but once. Sixty-eight quotations of the Exchange of Paris mark the price of gold higher, and only four lower than this proportion; at the Exchange at Amsterdam, we find fifty-five quotations above, and fifteen only below. For the present there is no fear of too much gold being imported for the purpose of exporting silver. It should also be observed, that the high price of gold in France has latterly been occasioned by political events.

“It is well known that the price of gold in Holland is regulated by the exchange on London. If England sends more gold to the Continent than she receives from it, then the rate of exchange on London rises, and gold is obtainable only at an *agio*. On the contrary, if England receives from the Continent more gold than she exports, the exchange on London is low in Holland, and gold is plentiful. Peculiar circumstances may of course modify these general rules; for instance, it is possible that England may have payments to make in Holland greater than Holland has in England, while the case is the reverse between England and the

other countries of Europe; then the state of exchange in those countries would naturally react upon ours.

“It often happens that other circumstances occur seeming to contradict these principles. Thus in August last (1849), pieces of ten florins were in demand in Holland for foreign remittances, although the price of bar gold was only at $1\frac{3}{4}$ per cent. agio. Again, the influence of the state of exchange on the importation of gold may recently have been observed; not long ago, gold was exported from England to the United States at the very moment that gold was supposed to be arriving from America in great quantities.” I have repeated at full length these remarkable admissions, to prove that the Dutch government was not arming itself against a pressing or even nearly approaching danger, and that their precautions were not even taken with foresight. To theoretical errors were added practical faults; the Minister of Finance had not measured the importance of the operation with sufficient accuracy; he estimated the amount of gold coin in Holland at 196,500,000 florins; it proved to be ¹172,000,000 florins.

The law was voted on September 17th, 1849, and the government received the full power they had demanded. A royal command appeared on June

¹ £8,041,666

² £14,333,333

9th, for the execution of the measure. The following are the principal articles: "1st. The pieces of ten and five florins shall cease to be in circulation as legal payment from Sunday, June 23rd, 1850, but they may continue to be employed in commerce: that is to say, that these coins may be accepted in payment at a conventional value. 2nd. These coins shall be received in payment by government, and by the collectors of the revenues of the kingdom, at their nominal value, till July 31st, 1850, inclusive."

At the time this notice was published, it appeared that the exchange of gold for bank-notes would take place under the most favourable auspices. Gold was at a tolerably high premium in the market of Amsterdam, bills of exchange on foreign countries were scarce, and consequently the payments of international commerce could very advantageously be made in the precious metals. Moreover, the government treasury was full, and the Netherlands bank declared itself ready to assist efficiently in the operation. But all these chances of success were destroyed by the precipitancy of the government. A complete panic was occasioned by the short period granted to the holders of gold coin: the people hastened to pour their gold into the state treasury, (which could not receive it all) or else to send it abroad. The government had imagined that the sum likely to be exchanged, would no

exceed ¹30,000,000 florins: they had miscalculated by two-fifths; for the sum amounted to ²50,000,000 florins. The 30,000,000 of paper money that they had been authorized to issue, together with the money in the treasury at their disposal, not being sufficient to pay for the amount of gold presented, they were obliged to have recourse to the bank of the Netherlands, and to borrow a sum of ³6,500,000 florins, at an interest, moderate it must be admitted, of $2\frac{1}{2}$ per cent. per annum.

The exchange being effected, it was necessary for the government to find a means of disposing of the gold withdrawn from circulation. It could be sold only in foreign markets; and there, private industry had forestalled the government, and the price of gold had fallen in consequence of the number of Guillaumes brought for sale. At first the Dutch government suffered only a small loss, owing to a momentary reaction in favour of gold coin; but the first sales having increased the depreciation, they were obliged, for fear of greatly adding to their loss, to stop after having disposed of ⁴21,836,000 florins: the loss then amounted to ⁵244,446 florins, being about $1\frac{1\frac{2}{10}}{100}$ per cent. By the middle of October, gold had fallen in value $2\frac{1}{2}$ per cent. below the legal

¹ £2,500,000

² £4,166,666

³ £514,583

⁴ £1,819,666

⁵ £20,370

price, and by the middle of December, 4 per cent. At this period, the pieces of five and ten florins, banished from Holland, were scattered about in the different markets of Europe: London had received them to the amount of £600,000; Paris to the amount of ¹ 63,000,000 francs; Germany had absorbed the rest: excepting from ² 28,000,000 to ³ 29,000,000 florins, still lying unsold in the treasury of the Netherlands.

The Guillaumes have continued to be melted and coined, in Paris, into 20 and 40 franc pieces; for I find in an official record furnished me by the President of the Mint, that Dutch coin was exchanged at Paris in the last six months of 1850, to the amount of ⁴ 40,934,053 francs; and in the first six months of 1851, to the amount of ⁵ 70,901,597 francs,—altogether ⁶ 111,835,650 francs.

The gold coinage of Holland, from 1816 to 1847, was 172,583,955 florins, equal to ⁷ 362,000,000 francs. Supposing that of this only two-thirds was in existence in this shape of coin in 1850, there would be 115,000,000 florins, or ⁸ 236,000,000 francs, all at once withdrawn from circulation, and thrown upon the gold market: is it possible

¹ £2,520,000

⁵ £2,836,064

² £2,333,333

⁶ £4,473,426

³ £2,416,666

⁷ £14,480,000

⁴ £1,637,362

⁸ £9,440,000

that the price of gold could be otherwise than affected? The gold thus suddenly demonetized equalled at least twice the annual produce of the world, previous to the discovery of California. The Mint of Paris alone, which had not struck above ¹27,000,000 francs in gold during the year 1849, coined ²85,000,000 in 1850, and ³269,000,000 in 1851.

Fortunately, the crisis was of short duration; the gold coined in Paris rapidly flowed either towards Piedmont, to pay the first instalment of their loan, or to Milan to pay for silks bought by Lyons and St. Etienne. Credit is at a low ebb in Italy, there is little paper circulation, tending to simplify accounts, and taking the place of specie in the adjustment of debts; gold is therefore always in demand, and the supply was speedily absorbed. Certainly, the apprehensions of the Dutch Government have proved hitherto groundless, and the desired object has been but partially attained: silver, having become the sole standard, has found its way (somewhat in excess) throughout the country, but the loss of gold coin has given rise to a small note paper-circulation: there is now a paper money of 10 and 5 florins (21 francs and $10\frac{1}{2}$), which, although at first but provisionally issued, will probably become per-

¹ £1,080,000

² £3,400,000

³ £10,760,000

manent circulation. Holland is following the steps of Prussia and Austria. The Dutch Government supposed that, notwithstanding the demonetization of gold, the coinage might remain in circulation, and be voluntarily accepted for its *intrinsic* value. This was a misconception of the nature of money, which is accepted as a circulating medium only on account of its *positive* value. As might have been anticipated, gold has ceased to circulate in Holland, and paper has taken its place. It is doubtful whether the nation has gained by the change.

We think we have sufficiently considered the subject of the fall in price of gold in 1850. During the last eighteen months the production of this metal has made immense progress. The crisis, which was then imaginary, may have taken a more serious turn, and may become hereafter a reality. This we will now examine.

IV.

The three great gold districts, which have lately grown into importance, are, the chain of the Oural and Altai Mountains, California, and its extensions to Sonora and Oregon, and the eastern and southern districts of Australia; let us consider each in its order.

The washings of the Russian streams first aroused public attention from the languor into which the question of gold-working had fallen. The deposits of the Oural, where the first discoveries were made, never gave any extraordinary results; the workings appeared almost impracticable above the 60th degree of latitude, and although begun on a great scale above half a century ago, they have remained almost stationary for the last fifteen years; the annual returns, divided about equally between the government and private individuals, scarcely exceeded ¹5,000 kilogrammes.

The Altai gold district was in a very different position; in spite of the rigour of an inhospitable climate, and the difficulties experienced from any work of labour with a scanty population, the development of produce was extremely rapid. Begun in 1828, the result, after the first eight years, was ²1,722 kilogrammes, but from that time it increased in a geometrical proportion; it rose to ³4,000 kilogrammes in 1840, to ⁴10,000 in 1842, and exceeded ⁵20,000 in 1847.

The year 1847 appears to have been the culminating point of the position of gold in Russia. The "*Administration des Mines*" report a produce of

¹ lbs. 13,397=£625,000

³ lbs. 10,718=£500,000

² lbs. 4,614=£215,250

⁴ lbs. 26,795=£1,250,000

⁵ lbs. 53,590=£2,500,000

*1744 pouds, or ¹28,521 kilogrammes, as the combined working of the Oural and Altai; admitting that one-fifth of the produce escaped the government tax, the result of the gold produce of 1847, would be at least ²110,000,000 francs. From that time the decrease has been continuous. The official reports of 1848, give the figures at 1,726 pouds, or ³28,252 kilogrammes; 1592 pouds, or ⁴26,077 kilogrammes in 1849; 1485 pouds, or ⁵24,324 kilogrammes in 1850; and 1,432 pouds, or ⁶78,000,000 francs in 1851. It is to be observed that the reduction refers exclusively to Siberia, east and west; not only has the activity of the workings in the Oural been undiminished, but it has slightly increased: the produce of 1849 was 342 pouds, being ⁷244 kilogrammes more than in 1845

The decrease of production appears to have been principally caused by excessive taxation. The working of the Siberian gold districts is divided between the Government and private owners, and in the division, the eastern side of the mountains has been retained by the former, whilst the latter have worked the western. The result has been an immense loss to the public treasury, for whilst two-fifths of

¹ lbs. 76,422=£3,565,125

⁴ lbs. 69,873=£3,259,625

² £4,400,000

⁵ lbs. 65,176=£3,040,500

³ lbs. 75,705=£3,531,500

⁶ £3,120,000

⁷ lbs. 653=£30,500

* A poud is equal to about 36 lbs. English; and is worth about £1679.

the washings of the Oural are from the government reserves, the Altai districts do not yield above 5 to 6 per cent. of this produce. The Russian government has endeavoured to collect by taxation what is lost either by abstraction or the washings. The tax was at first one-tenth of the net produce; it was then raised to 15 per cent, and has since been further increased. The new tax, however, only applies to Siberia, east and west. It is a progressive rate, divided amongst ten classes, the rate varying from 5 per cent. on the raw produce, when the working was from one to two pounds, up to 32 per cent. when the working amounted to 50 pounds per annum. The whole tax, however, was, in addition to another tax called "minier," also progressive, and varying, according to class, from four to ¹ten roubles per pound of gold.

These exorbitant taxes may have acted in two ways, either as an encouragement to fraud, or as a discouragement to production. At the distance at which we live from Siberia, a country where the light of public opinion has penetrated even less than the rays of the sun, it is difficult to decide between these two consequences, both perhaps equally probable. But the fact of the decrease remains undoubted, and this decrease has been to the extent of one-seventh in three years, or about ²4,000 kilogrammes.

¹ A Russian rouble is worth about 3s. 2d.

² lbs. 10,718=£500,000

The working of the gold regions of Siberia has not been of the democratic character which it has assumed in California and Australia. There the first comer, provided he were furnished with a pickaxe, a bowl, a cradle, and a small store of provisions, might, without further capital, pitch his tent over some square yards of land, and dig until he has made his fortune. With a license costing 60s. in Australia, and with a tax of 20 dollars a year in California, he may go where he pleases. It is not the government which fixes his boundary, but the regulations of the republic of miners, forming a community along the banks of a river, or at the foot of a hill, forbidding one man to usurp a greater space than he can work with his own hands; the miner himself possessing nothing, and therefore, risking nothing, may dispense with all calculations of profit and loss. If the spot he has selected does not answer his expectations, he shifts his ground, or his occupation. Under any circumstances, the tax, not bearing upon capital, and being moderate in amount, is easily paid; a few days work is sufficient for it; the remainder of his time during the year with his bad or good luck, is at his own free disposal. Such is not the case, in the Altai, where the aristocratic forms attaching to all industry, either at the will of the state, or from the force of circumstances, have exerted their influence over the first commencement of working the mineral districts. By the terms of

the imperial decrees, concessions are only obtained on special application, and for a term of twelve years, and the portion assigned to each person never exceeds 100 sagues (about ¹250 metres) by five wersts, (about 5335 metres); the same person may, however, take several lots, provided they are separated by a distance of five wersts. These contractors engage a certain number of workmen, whom they provide with utensils and machinery, besides feeding them and paying them high wages. Everything connected with the arrangements entails considerable advance of capital, and when the chance of a small return, or sometimes of no return at all, is added to the heavy deduction to be paid to the state, out of the raw material, is it surprising that members of this community are frequently unwilling to extend their operations, and almost always anxious to conceal the magnitude of their working?

It is said, that in keeping up the amount of the tax, the Russian Government has had less in view the advantage of a larger participation of interests than a desire to check a kind of industry very demoralizing in its nature. If such is really the motive, it might be less critically censured. Whatever the reason, so long as the Russian Government

¹ A metre is equal to 39,371 English inches, a sagene is equal to about 7 English feet, and a werst contains $1,166\frac{2}{3}$ yards, or 3,500 feet, equal to about $\frac{3}{4}$ of an English mile.

considers it advisable to keep up the present taxation, it is not likely that the increase of production of gold will be considerable; it appears to be limited for the present to an amount probably not exceeding ¹90,000,000 to ²100,000,000 francs per annum.

The Spaniards—those indefatigable treasure-seekers—who discovered the hidden riches of the Cordilleras, had been in possession of California for above two centuries. From the year 1602, Sebastian Viscaïno, the founder of Monterey, had learnt from the Indians, dispersed throughout that country, that it abounded in gold and silver. Nevertheless, instead of planting a colony of miners to examine the soil, the Spaniards sent thither a body of missionaries, who proclaimed the gospel, and at the same time instructed the natives in the rudiments of civilization and of agriculture.

In 1846 there was scarcely 10,000 of the original Spanish creoles, when a body of some hundreds of adventurers from the United States, under General Taylor, invaded and took possession of the country. The Government of the Union, in demanding its cession from Mexico, thought chiefly of an aggrandisement of territory; they wanted ports on the Pacific and a rival colony to Oregon. Little was it expected that in the valleys which descended from the Sierra Nevada would be found mines of gold

¹ £3,600,000

² £4,000,000

likely to become the principal attractions to colonization, and a district whose exuberant products would be shortly disseminated throughout the markets of Europe, as well as of America.

The extension of the population of California which so speedily occurred, is greatly due to the truly fabulous success of the first washings; the miners naturally first planted themselves on the richest "placers," they rather culled the produce, than exhausted it; they frequently discovered "pépites" weighing several ounces, if not pounds of gold; a clever workman made his fortune in a few days.

In June, 1848, Mr. Larkin, Consul of the United States at Monterey, valued the day's work of a gold seeker at an average of 25 to 15 dollars (¹133 to 267 francs.) Colonel Mason, in his report of August, considered the produce of a day's work of 4,000 European or Indian miners at ²30,000 to 40,000 dollars, giving an average of about 10 dollars ³(53 francs) to each workman. Captain Folson writes about a month later, "I do not think that there can exist richer deposits in the world. I have myself ascertained that an active workman can collect from ⁴25 to 40 dollars per day, valuing the gold at 16 dollars the ounce." Mr. Butler

¹ £5 to £10

³ £2 2s. 6d.

² £6,000 to £8,000

⁴ £5 to £8 -

King, whose report is of still later date, places the average day's work per man at about 16 dollars, or one ounce of gold.

During the second period of working, when the miners flocked to the "placers," and disputed every inch of the golden soil, the yield began to diminish in a very marked degree. A local mining journal, the "*Placer Times*," of 26th October, 1850, giving a *resumé* of the proceedings of the season, including the encampment from the River de la Plume to the River Consumnes, covering an extent of about 100 miles, and occupied by 60,000 gold-seekers, estimated the mean result of a day's work at from six dollars on the River de la Plume, to four dollars on the l'Yuba and Ours, and five dollars on the American Fork. The information collected by our consuls at the beginning of 1850, gives a result of one to two ounces per day in the Valley of the Sacramento, and from one to four in the newer regions of St. Joaquin. The diminishing produce, comparing one year with the other, was not without some compensation. If the miner gained less, he did not spend as much. The extravagant rise on all sorts of provisions, clothes, and tools, had been brought down to a more reasonable limit:— they no longer paid ¹one dollar for a pound of bread; ²eighty dollars for an outer covering; ³fifty dollars a-day

¹ 4s.

² £16

³ £10

for the use of a cart with two oxen, or ¹ 5000 dollars for a cask of brandy. An artizan could no longer command sixteen dollars for a day's work. Europe, the United States, and other nations, shipped to California cargoes of provisions and of manufactured goods; competition soon lowered the prices. Roads were made from the "placers" to San Francisco; bridges were thrown over the rivers; they established stores of provisions and merchandize at every canteen. Towns sprung up like mushrooms, and in 1850 San Francisco numbered 50,000 inhabitants. The production of gold in California appears to have now arrived at its third period. The miners have acquired a certain experience, their modes of working are less primitive, and they are more settled. The want of order is diminishing, and the average produce is increasing. The accounts from San Francisco in April, 1852, mentioned "placers" in the valley of the Sacramento, where a day's working yielded from ² fifteen to twenty dollars, and others on the frontier of Oregon, where the average was from ³ five to ten. On the frontier of Sonora the washings of the auriferous clay yielded ⁴ seven to eight dollars a day with the roughest description of work; all agreed that eight hours hard work should produce everywhere from six

¹ £1000

³ £1 to 2.

² £3 to 4.

⁴ 28s. to 32.

to ¹eight dollars, if the plain be rich; and as the miner could live on from ²two to three dollars a day, he might reckon on a gain of from ³400 to 500 dollars during the season. However, by the latest accounts, it would appear that the "placers" are beginning to be exhausted. 100,000 miners turning over continuously for three years the alluvial sands, (already successfully explored by the first comers in 1848 and 1849,) could hardly fail to extract everything of value. It remains now to explore the auriferous quartz veins which may extend to the centre of the Sierra Nevada. This new work, however, requires large capital, and extensive combinations. The success of such operations has hitherto been but moderate.

The auriferous richness of the quartz rocks in California appears sufficient to remunerate the speculator; and foreign capital is not deficient at St. Francisco. Whence is it, then, that the quartz mines have hitherto been but slightly attractive? It has arisen from the want of the requisite and essential conditions for the progress of such undertakings.

Property in "placers" or in mines is not yet sufficiently secure; it is neither yet placed fully under the safeguard of law, nor is it protected by

¹ 24s. to 32s.

² 8s. to 12s.

³ £80 to £100

police regulations. Anarchy still reigns in this new country;—not only have the miners to defend their persons and their acquisitions against the incursions from Indian tribes; not only are crimes and offences common (lynch law maintaining a permitted existence instead of laws and police); but every one appears to hold his property by right of first comer: a miner chooses the spot he likes best; a strong arm and a carbine, with a steady eye, are his title deeds. To seize upon a rich “placer” from a miner too weak to resist, is called in the slang of the district, to “jump a claim.” The President of the United States himself, stated in his last message, that “The mineral lands should remain free to every citizen;” and the Secretary of State has added, “that the right of occupancy should be submitted only to such laws as the miners themselves thought fit to make.”

The continuous flow of emigration, and the continuous working of the gold districts, appear to indicate, that in spite of many reverses and sufferings, the mass of emigrants consider the result as likely to be profitable. Without approaching to the fabulous accounts of the early adventurers, these results have certainly largely exceeded in magnificence those of any former period in history; let us endeavour to particularize some of them.

Mr. Butler King, in his report to the Secretary of State, in 1850, after a careful examination of

California, values the washings and gold working of the two years, 1848 and 1849, at ¹40,000,000 dollars. The basis of this calculation, the first officially presented, was a produce of 1000 dollars (²5350 francs) per miner, per annum.

According to Mr. Butler King, American emigration hardly began to flow towards California until September, 1849; up to that period, foreigners, principally from Mexico and Oregon, had reaped all the profit of the washings. The *San Francisco Herald* estimated, that at the end of 1850, the gold produce of California, for the twenty-one months between 1 April, 1849, and 31 December, 1850, at the sum of 68,587,591 dollars (nearly ³367,000,000 francs). According to the documents published in France by the Minister of Commerce, which appear to have been derived from local statistics, the produce was rather less than the above. From 1 April, 1849, to 31 March, 1851, in two years, it was raised to ⁴329,000,000 francs.

Monsieur Emilie Chevalier, who has just returned from a government mission to Panama, in a report to the Minister for Foreign Affairs, considers the result as having been much larger. The gold brought as freight by steamers in 1850, he estimates

¹ £8,000,000

³ £14,680,000

² £214

⁴ £13,160,000

at ¹50,306,525 dollars. The author of the report adds, on the testimony of a person whom he considers as competent to give a sound opinion, that the sums carried by passengers are not less than three fourths of the amounts brought as merchandize; and thus he arrives at the extraordinary figures of 88,000,000 dollars (more than ²470,000,000 francs) for a single year. At St. Francisco, where they are able to form probably a more correct estimate on a subject so difficult to trace accurately, they do not value the amount of gold carried by passengers at above one-fourth the amount taken in freight. Even on this supposition there will be a sum of 25,000,000 dollars, or above ³133,000,000 francs to be deducted; but it appears to me very doubtful, if the produce of 1850 exceeded this figure of ⁴329,000,000 francs, according to the French documents already referred to. We have more valuable documents of another kind to rely upon, in the quantities of gold coined at the United States' Mint; the following are the official figures:—

SENT TO THE MINT.			COINED.		
1849 -	12,243,175 dollars	£2,448,635	9,007,761 dollars	£1,801,552	
1850 -	38,365,160 „	7,673,032	31,081,737 „	6,396,347	
1851 -	56,867,220 „	11,373,444	62,812,478 „	12,562,496	
Total,	<u>107,475,555 „</u>	<u>£21,495,111</u>	<u>103,801,976 „</u>	<u>£20,760,395</u>	

¹ £10,061,305

³ £5,320,000

² £18,800,000

⁴ £13,160,000

All the gold sent to the Mint did not, however, come from California. A part consisted of specie sent from Europe, in exchange for American stocks or merchandize. The treasure found in 1848 in the Valley of the Sacramento, belonged, as it has been stated, principally to foreigners. Up to the month of March, 1850, the United States' Mints had not received above 11,000,000 or ¹12,000,000 dollars of Californian gold. At the end of August in that year the amounts paid in did not exceed ²24,500,000 dollars. A year later, the mints had received in gold from that source ³80,000,000 dollars.

The United States have naturally sent the larger number of the emigrants to California. It is with the United States principally that the trade is carried on. It would appear, then, to be natural that the principal flow of gold from the Sierra Nevada should take that direction. Doubtless a portion of the gold found annually in California will remain there, and form the circulating medium. Considerable amounts also will have been spread throughout South America, and amongst the various commercial countries of Europe, either in payment of goods shipped, or as the free capital arising from the accumulations of labor. I shall not be exaggerating, however, in supposing, that seven-tenths of the

¹ £2,400,000

² £4,900,000

³ £16,000,000

gold annually produced is coined in the United States, and that one-tenth of the produce only is shipped directly to Europe. Thus, then, the United States having received from California ¹100,000,000 dollars up to the end of 1850, the total produce of the four years, including 1848, (during which year there did not appear to have been any coinage from Californian gold), ought to have been from ²750,000,000 to ³800,000,000 francs.

The gold exported from California in 1851 is estimated by the Custom House returns at ⁴56,000,000 dollars. According to the calculations of the *St. Francisco Herald*, for the first three months of 1852, the total produce amounted to ⁵14,656,142 dollars; at this rate the produce of the year 1852 would not be less than ⁶62,000,000 dollars. The export of April is estimated at St. Francisco, at ⁷3,422,000 dollars, rather more than ⁸18,000,000 francs. The produce of the "placers," according to the latest reports, although still abundant, is decreasing; nevertheless, if Australia does not attract the most experienced and the most greedy of the work-people, the mines of California appear likely

¹ £20,000,000

² £30,000,000

³ £32,000,000

⁴ £11,200,000

⁵ £2,931,228

⁶ £12,400,000

⁷ £684,400

⁸ £720,000

to yield this year not less than about ¹300,000,000 of our money; that is six times the amount of the production of gold at the beginning of the century, throughout the civilized world. It is twice the amount of the production of gold in 1847. It is hardly needful to exaggerate these figures, as many writers on both sides of the Atlantic have already done, in order to prove that a change is occurring in our monetary values, and that the *status quo* which has lasted for above half a century, is not necessarily to continue for ever.

V.

Of the three great gold-producing countries of modern times, New South Wales is the one now most attracting public attention. This country enjoys several advantages over the others.

The climate is mild and healthy, the land is neither occupied by savage tribes nor infested with wild beasts. In a country where drought is the principal obstacle to successful cultivation, the gold regions, situated on the slopes of the highest mountains and near the sources of the principal streams, are naturally the best watered. They appear to extend

¹ £12,000,000

from north-east to south-west, following the direction of the Murray, the largest river in Australia, and over an extent of 1,400 miles, ¹(2,452 kilomètres) by 400 miles (643 kilomètres). This surface is larger, by four times, the extent of California, and five times larger than Great Britain.

The effects of the Californian gold have been principally felt at a distance from the producing country. The valleys of San Joaquin and the Sacramento were, before the extraordinary discoveries of 1847, but a desert, with but an occasional "oasis" of cultivation; California had neither population, agriculture, commerce, or industry. The "rancheros," half farmers, half hunters, raised cattle for no other purpose than for the value of their hides; the discovery of gold could hardly disturb any existing trade. The production itself was then the cause or the motive power, creating a new state of society, a new order of things.

In Australia, on the contrary, and long before the consequences of the discoveries could be appreciated in Europe, the working of the mines was of itself a revolution. The first washings occurred in May, 1851; at that time the English colonists in that part of the world were in a flourishing position. The population of European origin did not exceed 400,000 in the whole Australian group of islands.

¹ The kilometre is about $\frac{5}{8}$ of an English statute mile.

New South Wales, in which division Victoria was included, recently elevated into a separate colony, numbered more than two-thirds of this total, and formed the chief seat of its industry and wealth. The inhabitants, principally the descendants of convicts of the last century, obtained, in 1850, a representative form of government, and now make their own laws. They have upwards of fifty-one newspapers, and they have also public schools and banks. Their principal harbours are on a large scale, and the inter-communication by steam-boats and roads excellent. Their principal cities are Sydney, with its 50,000; and Melbourne, with its 35,000 inhabitants, which are lighted with gas, and have an organized police, as in London.

The luxury of living and of dress defies comparison, and affords large profits to tradesmen; they have already begun to make two railroads.—Australia has its commercial fleet, which entered into competition for the supply of flour to California in 1850. The trade with England is of twice the magnitude to that which existed between England and her American colonies at the time of their separation. The colonial revenue, exclusive of the sale of the Crown lands, which forms the foundation of the emigration fund, nearly amounts to £1,000,000 sterling, per annum.

Australia produces wheat, Indian corn, and barley, in abundance; they have planted vines, from which

they are making good wine; tobacco is successfully and extensively cultivated; but the principal source of wealth is derived from the growth of wool, for the production of which the lands watered by the tributaries of the Murray are as well adapted as the valley of the Mississippi is for the production of cotton. Australia takes a prominent position with respect to civilization, in the midst of the pastoral employment of her population. It is a vast arcadia, the poetical side being cast into shade by the industrial occupation of its inhabitants, and perhaps somewhat damaged by a very natural corruption of morals. It has been called a mine of wool and tallow; 20,000,000 of sheep are said to be pastured on its plains. In England the use of Australian wool has almost entirely superseded that of Germany and Spain, and the Yorkshire manufacturers cannot now dispense with it. In 1850 Australia exported 137,000 bales, and in 1851, 130,000; 130,000 bales are worth about 165,000,000 francs. The mother country receives, then, from Australia about £3,000,000 sterling of raw material in exchange for £3,000,000 of English manufactures; the result is most profitable for capital and labor; it is to this beneficial and flourishing trade that the sudden appearance of gold has threatened a most unexpected and alarming interruption.

¹ £2,600,000

Sir Roderick Murchison, whose opinions are considered as of high authority, commenting on the writings of Count Strelecki on the geology of New South Wales, announced, in the year 1845, that gold would be found in the sides of those great chains of hills, which may be called their Alps or their Pyrennees. At different times, fragments of the precious metal had been brought either to Sydney, or to Melbourne, without having excited the belief in the minds of the public that they were really the product of their own soil. In the month of March, 1851, a person, less incredulous than his neighbours, a Mr. Hargraves, struck with the similarity of the geological features of the country to California, whence he had lately arrived, made up his mind that gold must be to be found in New South Wales, and set himself resolutely to work to hunt for it at the foot of the mountains, and in the beds of the adjacent rivers. Having found some small portions, he followed the pursuit until he had satisfied himself of the existence of gold in a great number of places. He then went to Bathurst, an advanced post in the country, called a public meeting, openly announced his discovery; and in order to give practical proof, took many of his hearers to the seat of his own exploits, in a little valley at the foot of Mount Sumner, where he employed nine miners to dig actively, and to wash the earth. Four ounces of the purest gold were brought to light, as the

produce of three days' labor; each man had gained £2 4s. 4d. (61 francs) per diem; but this was not considered by Mr. Hargraves as above the half of the probable gain to be obtained by an experienced workman, and with proper implements.

This happened on the 8th May, 1851. The result of the experiment was immediately blazoned forth: three persons started for the washings, and returned in a few days with several pounds of gold. At the same time a geologist, ordered by the local government to attest the statements of Mr. Hargraves, at once stamped an official authority on the actual existence of gold mines. This news created an immense sensation, not only in Bathurst, but beyond, and in the capital of the colony. On the 19th May, there were 600 miners at the "*placers*;" an enormous immigration to a district where the population was but thinly scattered over an almost indefinite extent of land. On the 24th, some of the people wrote to their friends, that they were collecting from £3 to £4 per day. One party of four miners had in one day, obtained thirty ounces of gold, and had found a "nugget" weighing one pound. In three weeks time, one workman alone amassed £1,600 sterling.

We would remark, in running hastily over the account of these early experiments, that from the first, the inhabitants of Australia foresaw the serious consequences of the revolution about to occur. The

colonial journals were filled with lamentations and direful forebodings, and cursed, both in prose and in verse, the mania for gold. The solitude of the towns, at the expense of which the deserts were peopled, the abandonment of labour, the disruption of all social ties, flocks left without shepherds, and crops destroyed for lack of harvestmen: in short, every kind of misfortune from which the colonies are now suffering, were seen in perspective. The greediest seekers for gold might well take alarm; the epidemic, however, stopped not, and soon spread in all directions. The Government took the lead, by largely rewarding Mr. Hargraves, and appointing him the "explorer of the mineral districts." A proclamation immediately appeared, claiming the precious discoveries as Crown property, and announcing a rate of license for working gold mines at 30s. per miner per month. A wild spirit of speculation soon sprang up in every direction. The municipal authorities everywhere followed the example of the Government. From the Bay of Newton to the Gulph of St. Vincent, over an extent of 2,000 miles of shore, there was no town or village without its sought-for neighbouring "placers." In many districts, associations were immediately formed, offering premiums for the earliest discovery of gold.

The locality of the first operations was situated at the junction of two little valleys, whose water-

courses fell into the River Macquarie, a tributary of the Murray, and which soon received the scriptural name of Ophir. The early successful workings in these "placers" were soon cast into shade by the more brilliant result of the works on the Turon, and its tributaries; here gold was found not only in scales, but in pépites or nuggets. Whilst the Ophir digger was making his 15s. or 20s. on an average day's work, the people at Turon were counting their gains by ounces. The more primitive process of washing had given way to the more philosophical system by amalgamation. The operation was sufficiently remunerative to repay a simple mechanic at the rate of 20s. a day in addition to his keep; but the miners no sooner obtained money enough to buy a license, and some implements, but they set to work in a more business-like manner. They formed themselves into parties of three or six, the day's work of each party sometimes producing several ounces of gold. The weight of the pépites varied from one-fifth of an ounce to many ounces.

Towards the middle of July, Doctor Ker found in the valley of Meroo, a few miles from Wellington, a lump of quartz weighing 3 cwt., containing more than 100 pounds of gold. Later, again, they found three "nuggets," each weighing from 26 to 28 pounds. In the month of August, the export to England commenced; the first remittances of gold dust amounted to £50,000 sterling. The washings

at the Turon and Mount Ophir were then producing £10,000 to £12,000 sterling per week.

The treasure of Doctor Ker, exhibited first at Bathurst and then at Sydney, soon drove everybody wild. The very newspapers which had first maligned the discovery, now sounded the trumpet in praise of this wonderful piece of good fortune. "The news," says the *Morning Herald* of Sydney, "will astonish Australia, will astonish England, Ireland, and Scotland, will astonish California, and will astonish the whole world. On the arrival of the packet in England, when every newspaper throughout the United Kingdom shall have repeated the news of the discovery as the wonder of our age, the sensation will be profound, and will exceed anything hitherto talked of, or thought of; from the queen on the throne to the peasant in the fields, there will be but one united exclamation of surprise and astonishment; from the palace to the cottage, from the drawing-room to the stable, from the schoolboy to the philosopher and the statesman, there will be one universal talk of this mass of gold, and of the country whence it came; from all the ports in Great Britain and Ireland, ships will be freighted with passengers and goods--population and wealth will rush to Australia like a torrent. Port Jackson will be the best filled and the most flourishing harbour in the world, and Sydney will take its rank amongst the most opulent cities.

New South Wales will be looked upon in England as the queen of her colonies."

Waiting the impression to be produced in the mother country by the news of the "golden land," to use again the expression of the *Morning Herald*, the population of Sydney flocked to the diggings; the numbers who left were about 400 a day. Sailors deserted their ships in the harbours. Government, on account of the dearness of provisions, doubled the salaries of their officials. In every direction there was a general hunt in quest of new "placers;" and the districts South and West of Sydney were explored by miners to the extent of 200 miles. Auriferous deposits were discovered in the counties of St. Vincent, Argyle, Dampier, Wallace, and Wellesley, as well as in the basins of Murrumbidgee Shoalhaven, the River Hume, the River Peel, and the Snow River. At the extreme north of New South Wales, in the district of Moreton Bay, the diggings are in full work at the several branches of the River Condamine. Nearer to the capital, in New England, gold has been found in abundance in the basin of the River Macdonald. 200 miles south of Sydney, at Braidwood, one miner realized £30 sterling in five weeks; another £42 sterling in fifteen days; and a party of three £200 sterling in one week. Nothing was more common than a produce of two ounces per man per day; and not unfrequently it reached as much as one pound. Women

also set to work. One widow and her two daughters are said to have collected an average of two ounces a-day.

The district of Turon did not lose its repute. Such was the attraction for gold hunting, that a labourer at Meroo would not undertake to work for hire at a lower rate than £3 a-week, in addition to his food. Up to October, 1851, the Government had given out 8,637 licenses; 10,000 miners were at work in the province of Sydney, and £215,866 sterling, (about 5,500,000 francs) had already been shipped to England.

In December, the yield of the "placers" averaged £40,000 sterling per week, a sum equivalent, after deducting the stoppages during extreme drought and rain, to £2,000,000 sterling per annum.

These results, however brilliant they appeared, were soon eclipsed by the accounts from the province of Victoria. Gold was first discovered at Ballarat, where it was found at some considerable depth from the surface; then at Mount Alexander, where it was dug up merely by the pickaxe, almost on the ground; at Caliban, fifteen miles further, at Albany, on the Murray, and on the east coast at Gipp's Land.

It is asserted that the chain of hills which separates the province of Victoria from Sydney, and which are known by the name of the Snowy Mountains, is one vast mine of gold. Every

day announces some new discovery, and that of yesterday is almost always surpassed by that of to-day. The mines of Mount Alexander are in extent about ten miles, and the earth is said to be full of gold; they find the precious metal in a gravelly clay, and in the interstices of a slaty formation. It is sufficient to dig six inches of soil; and already, in the month of December, 1851, there were 15,000 miners at work, and the deposits appeared inexhaustible.

Here occurred the most extraordinary events. Amongst ordinary cases, seven workmen were cited, who amassed 500 ounces of gold in three weeks, which at £3 sterling per ounce, the then current value of gold in the colony, was about ¹260 francs per day each; at another time, two miners, in the same space of time, collected 400 ounces, or ²735 francs per day each. One carman, who had never even removed the earth, made up a bag of £1,500 sterling in five weeks. A convict, but just freed, made £150 sterling in sixteen days. A workman, who had never exercised any trade but that of shoeing horses, was somewhat less fortunate, but brought home £100 sterling, clear, after paying all expenses, and working five weeks. A boy of fourteen, in less time, collected £400 sterling; and

¹ £10

² £30

another of the same age, £120 sterling; but the ambition of the workmen knew no bounds; there was scarcely a man who set to work digging a hole who did not expect to come home at night with £40 or £50. These expectations were kept up by some most wonderful instances of fortune, the recital of which, repeated from group to group, amongst the diggers, soon became matters of history. One spot of a few feet square produced ¹45,000 fr.; four sailors, after six weeks' work, loaded their cart with a case containing two hundred pounds of gold, about ²260,000 francs; four other workmen, after two months' labour, divided ³1,000,000 francs. One workman was spoken of who gathered twenty-five pounds in two or three weeks, and another was known to have amassed eleven pounds in forty-eight hours; another, in less than one hour, made up a package weighing thirty pounds, worth at least ⁴38,000 francs. It was said that the miners would no longer pick up gold-dust, it was not worth while; anything smaller than a pin's head was thrown aside as too insignificant for notice. There must have been fine gleanings from these fastidious reapers.

In the "placers" of Mount Ophir, and of the Turon, where the profits and the workings were on

¹ £1,800

³ £40,000

² £10,400

⁴ £1,520

a more moderate scale, there was less difficulty in preserving order and good behaviour. Captain Erskine, of the Royal Navy, who was there about the end of July, 1851, reports most favourably in this respect. The miners received him with the most perfect civility; order and good feeling was the general rule. Captain Erskine only saw one man drunk on the placers. The sale of spirituous liquors was forbidden, and the Sundays religiously observed. There even appeared some traces of regular industry. The neighbouring "placers" of Port Philip presented a perfectly different scene. There, mining appeared to be considered as a complete lottery. The coolest heads soon grew as wild as the steadiest—passions and extravagance broke loose in all directions. The consumption of wine, beer, and spirituous liquors was enormous; gambling tables, quarrels, and prize fighting, desecrated the Sundays. One man was quoted who placed a £5 note between two pieces of bread and butter, and ate it as a sandwich. Another rolled up two £5 Bank notes, and swallowed them as a pill. A third went into a pastry cook's shop to eat a cake, threw down a Bank note, and refused to take up the change. The miners appeared to have no idea of the value of money; they bore their losses with the most perfect philosophy. One man, who had had a draft of 13760 francs stolen from him, and on

enquiring at the bank, finding it had been already cashed, exclaimed, "Bah! there is no want of money now."

A "*placer*" in the colony of Victoria presented the appearance of an immense encampment, with thousands of tents of all sizes, colours, and shapes; the bivouac during the night was illuminated with fires in all directions, and noisy with the discharge of guns and pistols; every miner was armed to the teeth, and could only trust to himself for the protection of his booty and his life; every one kept himself on the *qui vive*, and took even the precaution of daily discharging and reloading his firearms every evening at sunset. Government offered a weekly transport to Melbourne at a charge of 1 per cent.; but as, notwithstanding so exorbitant a charge, this transport was without any guarantee against robbery, the miners formed themselves into parties, when tired with making their fortunes, and escorted their own treasures. The bandits from Van Dieman's Land came down like birds of prey, and fell upon the miners, and in such numbers and with such fury, that when a murder was committed the local police were not unfrequently afraid to go amongst them to seize the murderer. The authorities of Melbourne were unable to give effectual aid under such circumstances; for their own city police, with the exception of six, had all gone off to the diggings. A cry of despair and indignation was

universally raised. "The imbecility of our Government," says the *Argus*, "has compelled us to take the police into our own hands, and to make lynch law the rule of action." The *Morning Herald* says, "The Government must act with energy, and without loss of time, or we shall become a second California, with mutiny and lynch law established, and crime in its naked deformity." The Governor, Sir G. Fitzroy, responded to this appeal by sending home for more troops, and by recruiting his police by discharged soldiers. Will it be sufficient for the preservation of this community, scarcely yet formed, from the threatened danger of disorganization, to send a vessel of war to the station of Port Jackson, and to Port Philip, and to reinforce the garrisons of Australia, as Sir John Packington proposes, with some 400 or 500 soldiers?

Fortunately, such a state of disorder is not likely to become chronic; when public authority, which ought to suppress it, is declared incompetent, society, alarmed for its own existence, steps in and at all hazard gets rid of turbulent characters. What is to be as much feared, especially in a community of such recent formation, is the attraction to a spirit of gambling, from fortunes thus suddenly acquired. Men, fascinated by such a magnet, abandon all productive and useful employment. Neither their ordinary vocations or their known duties will retain them in their ordinary habits; no rates of pay can

follow the progressive chances of the miner with his pickaxe; the trade of gold-seeking supplants every other occupation; a whole people are bowed down to the earth, and absorbed in a work which brutalizes them, and they abandon to others all the cares of and attention to the cultivation of the soil.

From the beginning of November last, the towns of Melbourne and Geelong were forsaken. Out of this numerous population the women alone remained stationary. The proximity of the "placers" at two or three days' journey rendered the access easy. It was not necessary, as at Sydney, to equip for a long journey, or to lay in a stock of provisions and money. Men deserted, in crowds, flocks, farms, ships, workshops, counting-houses, and shops; no wages would induce them to remain. They flocked in from Sydney, Van Dieman's Land, South Australia, and even from California. —Vessels arriving could not discharge their cargoes for want of hands; goods perished on the quays, where they had been piled up. In many districts of the colony business and cultivation were suspended; hands were wanted everywhere. When shearers were to be met with, they asked the enormous price of 3s. 6d. for twenty fleeces. A month later, and Adelaide, the capital of Australia, realized the picture of the "Deserted Village." Traders, artisans, proprietors, and capitalists, all were either ruined or had emigrated to Port Philip, to escape from

inevitable ruin. The shares in the celebrated Burra Burra Copper Mine, which had been sold for above £200, found no buyers at £60, and their 700 workmen had disappeared; prices of all goods and wages rose in a frightful degree.

We read, in a letter from Melbourne, of the 17th January, 1852:—"In the Banks and at the Post Offices, the clerks work double tides; other public services are at a stand for want of hands. There are no male servants to be found, even at exorbitant wages, and women will not remain, unless at considerable increase of pay. I requested first the waiter, and then the maid, at the hotel where I was stopping, to send a small parcel of linen to be washed. They told me that they could find no one who would wash. I was obliged to go to a shop and buy some new things. If you want a pair of boots, you must pay £2 10s. (63 francs). A pair of shoes cost 20s. (25 francs)."

Another letter, of the 1st January, adds again to the picture:—"In my opinion, this town is threatened with complete ruin. Last night, two men arrived, announcing a discovery of gold deposits in the district of Gipp's Land; they had brought £10,000 sterling in gold, and said there was enough there for all the world. What shall we do for want of labor? Suppose that 100,000 immigrants were to arrive here next year, would one of them remain in the towns or at the farms, earning a few shillings

per week, when they can go to the diggings and gather £50 in one day? At this very moment I cannot find one man in Melbourne who can mend a pair of boots at any price. I get bread from Collingwood, as a great favor, and the baker will not engage to supply me regularly. I pay 5s. for two buckets of water, and 30s. for as much wood as a horse can carry. One can hardly find a man with a handbarrow to carry a portmanteau, even at any price he chooses to ask. The servants of the Judge have all left him, and he cannot use his carriage; his sons clean the knives and shoes, and drag their invalid father to the court in a wheel chair."

An inhabitant of Melbourne, himself reduced to the necessity of looking after his horse, whilst his wife attended to cooking the dinner, writes:—"One of the members of our club, a large sheep-owner, and who cannot obtain shearers, is gone to the diggings to try and hire some men. He asked them what wages he should pay them, they replied that they must have all the wool; and, as he was leaving them, they called him back to say. 'We are in want of a cook; we will give you £1 a day if you like to take the place yourself.'"

At the "placers," a mechanic is worth at least £1 a day. The people who return to the towns with their little fortunes will no longer work, and consider that they have a right to live on in idleness.

All provisions are dear. At Mount Alexander, flour was sold at 5d. a pound (which is equal to ¹60 centimes the demi-kilo.); oats at 18s. the bushel, or ²64 francs the ³hectolitre. In August last, wheat was not higher than 3d. a pound, and oats 4s. the bushel, in the Sydney market, a higher price than in any famine year in the European markets.

Two causes have been acting simultaneously in creating this great rise in the price of all the necessaries of life, in those countries where the gold finders have become suddenly enriched by the discoveries of these "placers." In the first place, population increasing more rapidly than the supply of food, has necessarily caused a rise in price, and this consequent increase in price, is out of all proportion to the deficiency of supply. Who does not know that a deficiency of one-sixth, or even of one-tenth of the crop of grain, frequently doubles, or even trebles, the price during the famine. Such was the case in France and England in 1846; and without facilities of communication, and the cheapness of carriage, the result, even at that period, would have been much more calamitous. Can we be astonished, then, that in a country where civilization is but just established, where roads, canals,

¹ 6d.

² £2 8s.

³ 22 Imperial Gallons.

and railroads are wanting, the evils must be felt in a greatly increased degree?

Another cause is the very abundance of the precious metals. Gold, when amassed by handfuls, instead of being collected in very small quantities, and with great labour, must necessarily lose a large part of its value. The diminution of the price of gold and silver is, generally, only shewn by the increase in the price of every other article. The nominal value of the monetary sign remains the same, but its power diminishes in proportion to its increase in quantity, unless some counteracting cause, such as an excessive supply of provisions, &c., should step in and re-establish the equilibrium.

Up to the present time, every progress in mining in Australia is retarding the proper care and attention to the breeding of cattle. Van Dieman's Land, which produced food for other districts of Australia, is likely, it is said, to require an import of food for her own people. It was true that the crops at the end of 1851, presented every appearance of a magnificent harvest, but how could a harvest be got *in* on an island inadequately supplied with labour, and where the people are deserting daily for other places?

The position is certainly critical; with any other people than those of Anglo-Saxon race, it might be desperate: a few months more delay, and the

wool shearing will be lost; for the flocks, no longer watched, will have strayed away, and possibly will have perished. It was the work of a quarter of a century to have accumulated the capital employed in Agriculture in Australia; without an immense immigration, not of gold seekers, but of shepherds, and persons accustomed to a pastoral life, before the end of 1852 all this capital will be inevitably destroyed. England has awakened rather late to the danger, but she has now to work in good earnest to apply the remedy. The Governor of Australia witnessed the daily arrivals of emigrants with alarm, so long as they added only to the crowds of miners, and who by their competition still further increased the price of provisions; he even pressed the Colonial Secretary to try and turn the stream of emigration to other colonies. But independent of Government emigration, voluntary associations for the same object have not been inactive. Liverpool alone has been shipping at the rate of 2,000 a month for Sydney or Melbourne. Ships are wanting in all the ports of Great Britain and Ireland, for the transport of emigrants. Shipbuilding yards are all in the greatest state of active employment.

Nor has this want of an agricultural population in Australia been overlooked. The islands to the north and west and the Highlands of Scotland, contain a population far too numerous for their means of adequate support, so that in spite of hard and con-

stant work, there is frequent mortality from famine in this poor and barren country. Twenty or thirty thousand of these labourers, engaged for agricultural occupations in Van Dieman's Land, and for sheep tending in New South Wales, would cease to be a burthen on English charity, and would avert the ruin of Australia. Subscription lists are opened in England for this object, and the colony itself is in a position to lend its aid, as Sir John Packington informed Sir G. Fitzroy that the government would place at the disposal of the local legislature the revenues which might accrue from the workings of these gold regions. At this time the port of London contains a fleet of vessels ready to sail for Australia, capable of conveying 23,000 persons and 30,000 tons of merchandize. It is clear, that by abandoning all the rights of the Crown to the treasures of the "placers," the British Government has saved Australia. By this arrangement, the Colonial revenues have been almost doubled; 30s. a month levied on 60,000 miners, working eight months in the year, would produce ¹18,000,000 francs. A tax of 60s. which was attempted to be established, but which the miners resisted, might have produced ²36,000,000 francs. In default of English labourers, the expenses of whose voyage must necessarily be great, and whose willingness to

¹ £720,000

² £1,440,000

work could not be depended on, there would be funds enough to import a whole population of Indians or Chinese.

The production of these gold regions in Australia does not appear to have exceeded £1,500,000 sterling in 1851, from all the "placers" then worked; but we know that the working in the province of Sydney did not begin until the middle of May; and in Victoria, not until the end of September. In January, 1852, they reckoned 10,000 miners in the Sydney gold districts, the produce of which oscillated between 12,000 and 15,000 ounces per week. For eight month's work this would give about ¹31,000,000 francs at the Colonial price, and ²35,000,000 at the English price of gold; but the population will certainly have increased in 1852, and it will be a moderate calculation to estimate the produce of this province at ³40,000,000 to 50,000,000 francs during this year.

In the province of Victoria, 30,000 miners were at work at the "placers," at the end of December; and the number was daily increasing. They probably would have received, by the spring of this year, a reinforcement of 10,000. Mineral working is a lottery, in which very few gain the great prizes. A

¹ £1,240,000

² £1,400,000

³ £1,600,000 to £2,000,000

letter from Sydney, dated 4th February, thus sums up the result of the work, and of its uncertainty and irregularity. "They calculate, that out of every ten speculators who hire workmen for the gold-washings, only one repays his expenses, and of those who work on their own account, the proportion who are successful is about one in five." It is not to be expected, then, that the quantity of gold collected by so many miners should equal the brilliant, the extraordinary, profits made by many of the first adventurers. It is a liberal calculation to suppose that the 400,000¹ miners of the province of Victoria might obtain on an average 10s. or 12s. each for their daily work. At 200 days' work this could give about ¹3,000 francs each, or about 120,000,000 francs per annum. Thus, these two provinces would yield a produce in 1852, of ²40,000,000 for Sydney, and ³120,000,000 for Victoria, together about ⁴160,000,000 francs.

In following the scale of progress of California, these results might be doubled the third year: but it should be remarked, that up to March last, notwithstanding the immense increase of the workings carried on for nearly a year in Sydney, and for six months in Australia-Felix, the colony had not

¹ £120 each, or about £4,800,000 per Annum. ² £1,600,000

³ £4,800,000

⁴ £6,400,000

shipped, of all the gold it had collected, above £819,000 sterling (20,537,000 francs) to England.

Uniting the products of the three great gold regions, we find that Siberia, California, and Australia, are expected to supply in 1852, about ¹600,000,000 francs: a mass of gold equal to about 175 tons in weight. It should be borne in mind, that China and Japan have also their mines of gold and silver in full work; the produce of which does not appear, however, to leave those countries. The Chain of the Himalaya possibly contains mineral wealth equal to that of the Cordilleras, the dorsal division of South America, from Chili to Oregon. It is also said, that the inhabitants of Thibet have begun to work their golden alluvial deposits. All the mines in the world, therefore, are not yet fully worked; and there will, probably, be an ample supply for some generations to come. The gold supplied by America, independently of California, can hardly be estimated at above ²8,000 kilogrammes per annum. Hungary is the only country in Europe, excepting Russia, which is producing about ³2,000 kilogrammes of gold. The quantity from Africa is very small; and ⁴3,000 or 4,000 kilogrammes is the whole of the known produce of the washings in the Straits of Sunda, and in the peninsula of Malacca.

¹ £24,000,000

² lbs. 21,436=£1,000,000

³ lbs. 5,359=£250,000.

⁴ lbs. 8,038 to lbs. 10,718=£375,000 to £500,000

From all which sources united, an approximative value may be fixed at from ¹40,000,000 to 50,000,000 francs. To sum up the whole, then, it would appear that the gold production of 1852 may be estimated at—

For California . . .	300,000,000 francs=	£12,000,000
„ Australia . . .	160,000,000 „	6,400,000
„ Oural and Altai .	90,000,000 „	3,600,000
„ rest of the world	<u>50,000,000</u> „	<u>2,000,000</u>
Making a total of . .	600,000,000 francs=	£24,000,000

It has been already stated, that California produced ²750,000,000 francs during the four years 1848 to 1851. Russia, during the same period, at the rate of ³100,000,000 fr., will have produced ⁴400,000,000, and the other gold districts ⁵200,000,000. Thus, in the five years ending with 1852, the total production including Australia, will probably amount to nearly ⁶two milliards of francs: a result unexampled in history; gold has never previously flowed from such numerous channels, and from such abundant sources.

¹ £1,600,000 to £2,000,000

⁴ £16,000,000

² £30,000,000

⁵ £8,000,000

³ £4,000,000

⁶ £80,000,000

VI.

What will be the effects produced by this expansion of gold on those countries where the discoveries and working have occurred, and on the great centres of wealth and industry, where competition is in active operation, and where the gold may, when in the shape of coin, fix a new value on commodities? First, as regards the gold-producing countries themselves. It is clear that the attraction to the "diggings" must retard, if not put a temporary stop, to really productive labour, that of the cultivation of the land: but this demoralizing influence may not be of long duration. The "placers" will become exhausted, the gold of alluvial deposit, that which the rains and other causes have spread over the surface of the soil, has hitherto been the chief feeder of the supply. The thousands of miners working at the various sources, and turning over and over again every part of the surface, will soon have picked out every particle of the metal. The remainder of the gold must then be sought for in the quartz; whence it can be obtained only by the aid of scientific processes, and effectually extracted only by the application of capital: which is hardly likely to be supplied to an adequate extent, excepting by com-

panies, in the same way as has been the case in the working of silver mines. Then individual enterprize will be again directed to the cultivation of the soil. Out of the crowds of emigrants in Australia and California, now attracted to the "diggings," the number required for agricultural purposes will no longer be deficient. Amongst the adventurers who are expatriating themselves to seek fortunes in new countries, there will be numbers of poor families who will consider themselves adequately repaid by being able to obtain in a distant land, a fair remuneration for their services, and the ownership of land, with the means of a comfortable livelihood.

The Spaniards, in the early days of conquest in South America, began by abandoning all other pursuits than the search of gold and silver; they ended however, by building cities, forming harbours, constructing churches, planting the land, and rearing flocks. After the soldiers came the miners, after the miners came the colonists: swords were turned into plough-shares. That which occurred in the 17th century will recur in the 19th. Australia, California, and the colder regions of the Altai, will be covered with people. It may readily be believed that Providence, in the accumulation of treasures like loadstones in the hearts of the mountains and in the depths of the valleys, has contemplated the attraction of a superabundant population, and of

the genius of colonization throughout the civilized world.

Thus much for the producing country itself. Let us now consider the effect of this superabundance of gold on the importing countries. The first and most important question is, whether the relative proportions in value between gold and silver is likely to be materially disturbed. We have been considering the present production of gold, let us now see how the case stands as regards silver.

Mons. de Humboldt estimates the amount of silver annually produced at the commencement of this century at 870,000 kilogrammes (about ¹193,000,000 francs). In 1847, M. Michel Chevalier, considered the annual production to be 775,000 kilogrammes, (about ²172,000,000 francs), but there is reason to suppose that this writer under-estimated the returns of the Mexican mines, which he placed at ³18,500,000 piastres, and in a later work, the same authority states the production at ⁴900,000 kilogrammes. The English paper, *The Economist*, estimated the return of 1850 at ⁵191,772,000 francs; the actual production, however, appears to have been much larger. It cannot be placed at a lower figure than 1,000,000 of kilogrammes for 1851, or at

¹ £7,720,000

³ £3,700,000

² £6,880,000

⁴ lbs. 2,411,562=£7,234,686

⁵ £7,670,880

about ¹230,000,000 francs. The following is the table of details:

Mexico - - -	133,000,000 francs=	£5,320,000
Chili - - -	22,000,000 „	880,000
Peru - - -	25,000,000 „	1,000,000
Bolivia and New Granada	12,000,000 „	480,000
Russia and Norway -	5,000,000 „	200,000
Saxony, Bohemia, Hungary, &c., -	12,000,000 „	480,000
Spain - - -	16,000,000 „	640,000
The rest of Europe -	5,000,000 „	200,000
Total -	<u>230,000,000</u> „	<u>£9,200,000</u>

We do not think we shall be exaggerating in supposing that the production will have reached ²250,000,000 francs in 1852, and that it will consequently have exceeded ³1,100,000 kilogrammes. At this rate the accumulated value of the precious metals produced in 1852 will have reached the figure of ⁴850,000,000 fr., of which silver will represent the proportion of about 30 per cent; the weight of gold will then be in the proportion of 1 to $6\frac{3}{10}$ to silver.

In estimating a gradual increase in the production of silver, we have some data for our supposition. In 1843, there was scarcely ⁵16,000,000 piastres

¹ £9,200,000

³ lbs. 2,947,465=£8,842,395

² £10,000,000

⁴ £34,000,000

⁵ £3,200,000

from Mexico; in 1849, the silver coined at the Mexican Mint amounted to ¹20,000,000 dollars, without reckoning that portion which escaped duty, and which probably amounted to ²3,000,000 or 4,000,000 more;* we are certainly quite within the mark, it is even more probable that the production this year may again reach the sum of ³27,000,000 dollars, to which it had attained in 1805, under the Spanish Government. In Chili the progress has been still more rapid, the mines which in 1841 produced ⁴821,000 piastres, and in 1845, ⁵1,534,000, having in 1849 given ⁶3,343,000, and in 1850 ⁷4,070,000 piastres.

One cause of a purely local nature has contributed to this result. It is known that the process of amalgamation is almost the only one employed by the miners in extracting the ores of Chili, Peru, and Mexico. To obtain 1 cwt. of silver it is necessary to employ $1\frac{1}{2}$ cwt. of quicksilver; it is evident, therefore, that the price of quicksilver must have a great influence on the cost of extraction. When it has become too dear, the working has been

¹ £4,000,000

⁴ £164,200

² £600,000 to £8,000,000

⁵ £306,800

³ £5,400,000

⁶ £668,600

⁷ £814,000

* According to the information of M. Rosales, the production of Chili in 1850 should have been 4,070,000 piastres.

confined to the richest mines; when it has fallen the increase in the working of the poorer ores has soon followed. Before the war of independence, the Crown of Spain, preserving the monopoly of the sale of quicksilver, gave it out at all their depots in Mexico at ¹35 to 40 piastres the cwt.; thence arose the immense increase in the workings of the silver mines, notwithstanding the coarseness of the ores. Since the Spanish Government, however, has, pressed by the miserable position of its finances, farmed out the produce of the Almaden mines, the lessees who had agreed to pay a very heavy rent, and who had no competition to fear for a long period of time, raised the price of the quicksilver beyond all bounds. A few years since the price at Guanaxuato rose to ²150 piastres the cwt. In 1850 the agent of Messrs. Rothschild fixed the price at ³103 piastres in Vera Cruz, and at ⁴105 at the depot in Mexico. At the same date the price was ⁵120 at Mazatlan. The cost price of the quicksilver at Almaden is ⁶18 dollars the cwt., and it is sold at the rate of ⁷45 dollars for extraction of the ores in Spain.

The high price will cease with the monopoly.

¹ £7 to £8.

⁴ About £21

² About £30

⁵ About £24

³ About £20 12s.

⁶ £3 12s.

⁷ £9

Spain has no longer the exclusive privilege of furnishing quicksilver for the mines in the New World. California possesses mines of cinnabar in abundance, and they are now in full work. Those of New-Almaden, situated at some leagues from San Francisco, are now producing ¹400 kilogrammes a day. At 300 day's work this could give a provision of ²120,000 kilogrammes, sufficient to work at least ³80,000 kilogrammes of silver. At the mine itself this quicksilver is worth ⁴25 piastres the cwt.; brought to Fresnillo, near the rich veins of Sombrerete, and on the backs of mules from the port of Mazatlan, it has been sold at ⁵93 piastres in 1850. The proprietors of New-Almaden undertake to reduce the price whenever the price of Spanish quicksilver shall be lowered. They have sent some of it to Chili, where silver-mine working has taken a fresh start. They can sell it advantageously in Peru, for the quicksilver of Huanca-velica cost at Pasco in August, 1850, ⁶104 piastres the cwt. The mine of New Almaden is not the only one being worked in California; cinnabar is met with in several directions, and hereafter it is probable that California may be looked to as a country producing quicksilver as well as gold.

¹ lbs. 882=£103

⁴ About £5

² lbs. 264,660=£30,875

⁵ About £18 12s.

³ lbs. 214,361=£643,083

⁶ About £20 16s.

The news of the discovery of quicksilver mines in Mexico, in the neighbourhood of San Luis de Potosi, was confirmed by accounts received in London in March last. Are they old mines formerly abandoned on account of their poverty, or have they really discovered an ore which, as at New Almaden, yields a produce of 50 per cent. of quicksilver? This is a point yet to be cleared up. In the meantime the price of silver has fallen in the district of Guanajuato to ¹40 piastres the hundred weight, and it is now varying between a price of ²55 and 56 piastres. In short, one of the conditions connected with silver mining has materially changed. An economy of ³60 or 70 piastres per hundred weight in the cost of amalgamation can hardly fail to kindle a fresh spirit of enterprize.

Another cause will necessarily act on the production of silver, and that is the very abundance of gold. When silver is found to be more in demand, fresh activity will ensue, both in reopening old galleries, which have been closed as not sufficiently remunerative, and in pushing on the work in those actually in operation. If the mines, feeding the present supply, are becoming exhausted, and other sources are not forthcoming, in a few years silver will reach

¹ About £8

² About £11 and £11 4s.

³ About £12 or £14

the price of gold, or the value of gold will descend to that of silver; but as the limits of silver working are but the price of labour, the power of machinery, and the application of science, so, every increase in the quantity of gold which is not caused by accidental circumstances, or by an extraordinary demand, must produce a corresponding increase in the production of silver. Is not this a fact which we have been witnessing since 1850? Who can venture to affirm that Californian gold has had no influence in stimulating the workings of silver in Mexico and Chili? Besides this, the extraction of gold is generally accompanied with a production of silver. Silver mines are not always auriferous, and the richest in gold contain but a small quantity of it, but gold mines are almost always argentiferous. The proportion of silver in a "nugget" of gold is about 1-8th in California, 1-10th in Siberia, and 1-5th in New South Wales. So that for every ¹four kilogrammes of gold in Australia, there is about one of silver. This is an important fact resulting from chemical analysis.

The production of silver is in the course of increase. Will that of gold be kept up? It is reasonable to entertain considerable doubt on this point. In Siberia we have seen it retrograde since

¹ 4 kilogrammes of gold are equal to lbs. 10·7212=£500.

1 kilogramme is equal to lbs. 2·6803=£8·0409.



1847. The extraction appears stationary—perhaps rather on the decrease in California. Australia alone, with gold fields yet unexplored, appears likely to produce much more than heretofore. Auriferous strata may be discovered elsewhere, and add to the general stock. Combining these various circumstances, we incline to the opinion that the quantities now forming the annual production of gold will not be diminished for a certain number of years; but when the miners have exhausted the gatherings from the alluvial deposits, and it becomes necessary to seek the golden ore in the rocks and mountains, in which nature appears during the various revolutions and convulsions of the world, to have deposited it; then the working of the mines will depend upon the amount of capital and the degree of science, which may hereafter be brought to bear on that description of enterprize. —

In a paper read in 1848, before the Royal Institution of London, Sir Roderick Murchison remarks that the principal deposits of gold are found in auriferous “detritus,” and that the same degree of success must not be expected to ensue from exploring the veins, which are ramified through the quartz rock. The result hitherto shown in California fully confirms this theory, as is shown in the following letter from an engineer at St. Francisco, dated 4th April last, after an expedition amongst the localities occupied by the gold diggers:—

"I send you the result of experiments made upon fragments of rock. In each we have operated upon three tons of quartz, reduced to powder, and carefully worked by amalgamation. We have made five experiments upon as many veins in the county of Bath, which is situated between l'Yuba and the River de la Plume. No. 1 has produced ¹3 dollars 53 cents per ton; No. 2, ²9 dollars 50 cents; Nos. 3 and 4, ³11 dollars each; and No. 5, ⁴17 dollars.

"In the county of Nevada, experiments have been made on four different points. The first has given ⁵15 dollars per ton; the second, scarcely any gold; the third, ⁶14 dollars per ton—this mine, upon which a company had established works, has been abandoned;—and the fourth has given 59⁷ dollars, the vein being of an extraordinary richness, and having yielded large returns to the proprietors.

"In the county of Eldorado, three different veins did not give a larger return than ⁸17 dollars per ton; a fourth equalled the richness of No. 4, in the adjoining county.

"In the county of Mariposa, out of eight experiments, three veins gave hardly 3⁹ to 7 dollars per

¹ About 14s.

⁵ £3

² About £1 18s.

⁶ £2 16s.

³ About £2 4s.

⁷ £11 16s.

⁴ About £3 8s.

⁸ £3 8s.

⁹ 12s. to 28s.

ton; three more gave ¹7 to 20 dollars; one gave ²24 dollars; and one more, ³38. The two last veins have attracted miners, who are going to work them. No enterprize requires a more careful and a more expensive examination than an auriferous quartz mine. A good vein, yielding ⁴36 dollars per ton, may be considered, by moderate people, as worth working; sometimes they are found much richer; but out of all the quartz-crushing mills which have been set up in California, I do not think that one-third are used for mines which are yielding, for any continued period, ⁵30 dollars the ton; so that one-half of the works of this nature are suspended."

From the above account, it would appear that a vein of quartz, to be considered productive, should give 36 dollars, or ⁶192 francs per ton. This return represents a weight of 55 grammes upon 1000 kilogrammes, or $5\frac{1}{2}$ parts of gold out of 100,000 parts of quartz. Mineral of iron stone will give 10 to 15 of metal per 100; and the production by melting is infinitely less troublesome or expensive than the extraction of gold. In Australia, it was at first supposed, after an analysis of some ounces of quartz, taken from Mount Ophir, that the ton

¹ £1 8s. to £4

⁴ £7 4s.

² £4 16s.

⁵ £6

³ £7 12s.

⁶ £7 5s.

would yield more than £1100 sterling; but these experiments, made on so small a scale, are of little value. It is not likely that Australia, when the miners find themselves reduced to the necessity of working the quartz rocks, will show any considerable increase of yield over California.

The extraordinary abundance of gold, then, does not appear to be of permanent duration. It is a sudden outbreak which we, accordingly, have to meet. It does not appear to be, as far as we can now form any opinion, a reign of one metal, which is likely to take the place of some other; nevertheless, there will most infallibly be a very marked fall of gold in comparison with silver, unless met by a most extraordinary activity in working the silver mines; other causes, however, although secondary in themselves, appear, concurrently, likely to neutralize part of the effect of this superabundance.

It is of little importance to ascertain the amount of the annual production of the precious metals, unless we investigate the proportions in which they are distributed between the two hemispheres. Silver gives rise to a regular trade, and, coming from sources long open, it is sent almost exclusively to Europe, as an article of exchange, against the produce of her soil, or of her industry. Gold in California, on the contrary, a source of unexpected wealth, starting up in a new country, is first absorbed by the wants of a local circulation. A new

society, formed in the midst of a desert country, necessarily requires some medium of exchange: some money. Next to the immediate necessities of California come the wants of the United States. These States have, for some years past, been endeavouring to introduce a greater amount of the precious metals into their monetary circulation. The gold of California has powerfully contributed to effect this object. Silver coin now circulates, but in small amounts, throughout the Union. They have coined gold pieces of 20, 10, 5, and even of one dollar. Out of ¹400,000,000 to 500,000,000 francs, brought in during the three first years, not more than ²70,000,000 or 75,000,000 have found their way to Europe. The import of 1851 has been more sensibly felt. According to the returns of the American newspapers, the quantity of gold shipped to Europe from New York and New Orleans, was, during last year, ³200,000,000 francs.

The like result is obtained from other channels of information. The Mint of London, which ordinarily coins gold at the rate of about £2,000,000 sterling per annum; and which, in 1850, had not coined more than £1,492,000 sterling; in 1851, increased their operations to the extent of a coinage of £4,200,000 sterling (above 105,000,000 of francs).

¹ £16,000,000 to £20,000,000

² £2,800,000 to £3,000,000

³ £8,000,000

The moiety of this gold must have come from California. In the same year, the mint of Paris coined in gold ¹269,709,570 francs, of which about half was supplied by the conversion of 100,000,000 of Dutch Guillaumes into French money. In the accounts of the German Mints, we find about ²200,000,000 of Californian gold. If we are to judge from the operations of our own mint, the import of 1852 will be smaller than that of 1851; for we have coined but 14,000,000 pieces in gold during the first three months of this year.

Australia sends regularly large amounts of her gold to England; but a part of the export of gold dust, or "nuggets," is returned in gold coin. Many vessels have lately cleared from London with £200,000 sterling; and this at a time when England had barely received £800,000 sterling, from Sydney and Melbourne. Considerable amounts will likewise be imported in plate and jewellery. The more wealth increases in the colony, the more gold will be employed both for circulation and for luxuries. The producing country will be most certainly, *par excellence*, the country of consumption. Europe contains 200,000,000 inhabitants, of whom not one-half are adequately supplied with metallic money. It would require,

¹ £10,788,383

² £8,000,000

certainly, an addition of many milliards of francs to the quantity of the present metallic circulation, to put many of these countries in an equally favourable position in this respect with France, Belgium, Switzerland, Holland, and Great Britain. We know, that only nations of industrious habits are in want of a larger supply of gold and silver because they alone carry on trade to any extent. Abundance of production precedes and gives rise to a demand for money. Wealth must exist in a country before the sign of that wealth is required; but, at the same time, it cannot be denied that the circulation of the precious metals stimulates, to a great degree, the creation of richness; it acts like roads, canals, or other modes of transport, which, by opening the means of reaching markets, extend the radius of operations, and give additional value to commodities. One half of Europe has a trade of inconsiderable importance, and derives but a small part of the benefit of the produce of its own soil. It has neither industry nor credit. In many countries now, gold and silver are replaced by the use of paper-money, often discredited in its own, and in all cases valueless out of its own country.

Austria has just made, partly in London, and partly in Frankfort, a loan of £3,500,000, intended principally to restore the credit of her paper money. This will be the first step towards the

restoration of metallic money, which had disappeared to such an extent, that the smaller notes were often divided into four, to use for change. Prussia, Poland, Russia, and Turkey, have experienced, in different degrees, the like embarrassment. Before these various markets are all superabundantly supplied with gold and silver, the treasures of Siberia, Australia, and the two Americas, may be diffused for many years over the continent of Europe.

The scarcity of gold had restricted its use; in France, for example, the smallest gold coin was ¹20 francs. Since it has become more common, the Mint have coined pieces of ²10 francs, which are much liked, and are convenient for use. These smaller coins appear likely to take the place of a portion of our silver, which is needlessly cumbersome. It is supposed that the use of Bank-notes of ³200 and 100 francs has economised the use of several hundreds of millions of the precious metals. The 10-franc pieces, when more generally used in circulation, will take the place of, and drive out a portion of silver coin. The demand for silver then will diminish, whilst that for gold is increasing. Silver will be used as change for gold—as gold is for bank-notes. This is the case to such an extent in England, where the silver circulation is small, that the Mint in London, which coined £1,492,000

¹ Say 16s.

² 8s.

³ £8 to £4

sterling in gold, in 1850, only coined £130,000 sterling in silver in the same year, whilst, in the same year, 186,000,000 francs in silver were coined at the Mint in Paris. It must not be forgotten that the use of the precious metals is not confined to the limits of Christian civilization. The Chinese import Peruvian and Mexican dollars in exchange for their silks and teas; they attract by their trade the gold produced in the neighbouring Islands, and in the Straits of Sunda. This industrious nation has sent its contingent of labourers and traders both to California and Australia. A portion of Californian gold has already gone to China, but Australia appears better situated for the purpose of supplying the eastern regions and the southern portions of Asia with the precious metals. The Australian gold, however, sent there will be as so much lost treasure; for whilst the precious metals which are thrown into circulation in Europe continue in use as coin for a long time, that which is sent to China, or India, or Africa, altogether disappears; it is not required for circulation, but seems to be consumed.

Nothing appears more likely to restore the confidence of those who have taken alarm at the abundance of gold than the consideration of the almost unlimited extent of its market. What people,

¹ £3,440,000

civilized or uncivilized, agricultural or manufacturing, do not enter into competition for a supply! What are the millions of francs extracted from the Cordilleras when compared with the capital created by the labour of the inhabitants of the whole globe?

The combined washings of the Altai, California, and Australia, during a quarter of a century, would be required to produce a sum equal to the annual revenue of England alone. This unexpected harvest of the precious metals is but an addition to a common fund of wealth; it cannot produce a deep or a durable impression on the almost incalculable mass of wealth already existing in the world.

After all, Europe herself does not preserve gold and silver as relics. Money is used by wear and tear to such an extent that it must from time to time be recoinced, and the consequent loss falls on the community at large. The use of silver and gold plate, of gold work and jewellery, is increasing every day, as a distinguishing mark of the rise of the middle classes; the manufacturers of France, England, and Switzerland are at work for all the world. English statisticians have estimated the loss, from use, disasters at sea, and export without return of the precious metals, in the United States and Europe, at more than ¹125,000,000 francs a-year. A more moderate

¹ £5,000,000

estimate reduces this sum to ¹75,000,000 francs. As to articles of luxury, the sums of gold and silver employed therein annually, have been estimated by Mr. Jacob, at ²148,000,000 francs, without including the consumption of the United States of America. Mr. M'Culloch, who embraces the United States in his calculations, puts the amount at ³150,000,000. France, herself employing upwards of ⁴30,000,000 francs, it may be admitted, without fear of exaggeration, that the sum of ⁵125,000,000 of gold is used for domestic purposes. Here, then, we have an annual consumption of ⁶200,000,000 francs; the proportion borne by gold in this absorption of the precious metals is every day becoming more important. What remains, at the present time, of the enormous masses of the precious metals which Mexico and Peru have poured forth during the last three centuries? The amount of gold and silver now in the form of circulation would scarcely equal the produce of the mines during the last fifty years. The 30 milliards which America sent to Europe, from the Spanish Conquest to the beginning of the 19th century, has almost entirely disappeared. It would appear as if industry, in its contact with gold and silver, must have volatilized it. France

¹ £3,000,000

⁴ £1,200,000

² £5,920,000

⁵ £5,000,000

³ £6,000,000

⁶ £8,000,000

converted into coin a large amount of the precious metals; but when coined, it did not remain there. Exportation appears constantly to produce the effect of banishing it from the country. Thus, in twelve years, from 1840 to 1852, we have imported ¹123,012 kilogrammes of gold, and we have exported ²71,217 kilogrammes; the difference in favour of the import being ³51,795 kilogrammes, equal to ⁴181,138,000 francs, showing an average of ⁵15,000,000 francs per annum. Jewellery, goldsmith's work and gilding, employ, annually, in France, quantities of gold exceeding that sum in amount. The excess, then, is taken from the coinage, which accounts for the ordinary premium on gold in our market. The average would be considerably reduced if we except the year 1851, during which the import has exceeded the export by ⁶34,503 kilogrammes; but the results of 1851 may be considered as exceptional. Already, the greater part has disappeared; gold finds its way from France to London. The Bank of France, whose metallic reserve in 1851 included an amount of ⁷100,000,000 francs of gold, now does not hold above ⁸15,000,000 to 20,000,000. French gold coin, common enough in Paris, is scarcely seen in the provinces.

¹ lbs. 329,612=£15,376,500

⁵ £600,000

² lbs. 190,827=£8,902,125

⁶ lbs. 92,451=£4,312,875

³ lbs. 138,785=£6,474,375

⁷ £4,000,000

⁴ £7,245,520

⁸ £600,000 to £800,000

From 1840 to 1852, French commerce imported ¹10,175,312 kilogrammes of silver, and exported ²3,688,279 kilogrammes. The excess of import, ³6,487,033 kilogrammes, represents a sum of 1,303,893,633 francs, or 108,657,802 francs a year. Admitting that ⁴15,000,000 are annually absorbed in the demands for articles of luxury, and ⁵10,000,000 or 12,000,000 for wear, our monetary reserve of silver would have increased at least ⁶1,100,000,000 since 1840. This leaves a large margin in the circulation of France for the displacement of silver by gold coin. When the import of gold shall have exceeded the export by an amount equal annually to ⁷200,000,000 francs, with this accumulated reserve of ⁸1,100,000,000 and with an annual excess of ⁹80,000,000 to 90,000,000 francs over the import and consumption of silver, it will require at least ten years to restore the equilibrium between the two metals, to the state in which it was in 1840.

No subject has given rise to more rash and speculative opinions than that connected with the trade in gold and silver. Amidst the great variety of conflicting phenomena, statistics appear almost value-

¹ lbs. 27,264,889=£81,794,667 ⁵ £400,000 to £480,000

² lbs. 9,882,794=£29,648,382 ⁶ £44,000,000

³ lbs. 17,382,095=£52,146,285 ⁷ £8,000,000

or £4,346,312 per annum. ⁸ £44,000,000

⁴ £600,000 ⁹ £3,200,000 to 3,600,000

less; but so long as gold continues to bear a premium, in spite of the apparent superabundance, and notwithstanding its partial demonetization, it may well be considered doubtful whether the relative proportions, established by law between gold and silver in so many countries, will be materially affected for at least some years to come.

Various remedies have been proposed by alarmists, to prevent the evils of the influx of Californian and other gold. Some have desired that government should limit the quantity of gold to be annually coined. This expedient, in the event of a depreciation in value, would be of little avail, for the quantity imported and kept in the shape of bars, would equally augment the general stock, and weigh down the price. Others have thought of altering the legal value, but this plan would be useless as long as gold remained at a premium. If gold became depreciated it would be injurious only until the fall was ascertained, and considered durable; this once determined, things would go on as before.

Then comes the question as to the demonetization of gold; doubtless no point is of greater importance for a standard of circulation than a fixed value. It is a fact that in all those countries where a double standard of gold and silver is established, one or other has always obtained the ascendancy, and maintained a premium, and has ceased to appear in the shape of money; logically, it would appear quite enough

to regulate all prices by the value of one metal, without exposing trade to the uncertainty of an alteration in value of two. In the adoption of one only, however, it is desirable to examine which of the two has, over any given period of time, been subject to the least variation. Before the discovery of California, silver would certainly have had little chance of being selected. Even now it appears to me that the question has not so materially changed as might at first sight be supposed.

It should be remembered also, that it is not so easy for all countries who may have adopted the double standard to exclude one from their monetary code. The example of Holland has proved that gold, having lost its character as legal money, will no longer be used as a token. To demonetize gold is to exclude it from the market. For a great commercial country like Holland, living in the greatest freedom, and carrying on its trade by exchanging and carrying the products of all the countries in the world, to exclude one of its habitual means of exchange, may not be attended with great risks. England, though little disposed to imitate Holland at present, might perhaps do so with less danger, from having the commerce of the whole world in its hands. France, unless under pressing necessity, could not demonetize her gold without exposing herself to a complete disturbance in all her relations, both at

home and abroad. Our trade is tied up by a completely protective system, without alluding to those direct prohibitions which disgrace our customs' tariffs; almost all the duties which affect articles of primary consumption are, in short, disguised prohibitions. In exchange for the products of our own country, which we have to sell to the foreigner, we can hardly purchase in return anything but raw materials. Thus, bar and pig-iron, those articles of primary importance, have been subjected to duties at the rate of 100 per cent. on their value. In those countries enjoying a legislation attentive to the wants of trade, and where the custom-houses are only for the objects of revenue, the imports and the exports will show an even balance. In our country, where we have been desirous of opposing a barrier to the free course of exchange, goods exported have always a preponderance in value over those imported. In 1850, for example, the imports represented a value of ¹790,000,000 francs, and the exports ²1,068,000,000 francs, showing a difference of ³278,000,000. England and the United States, together, receive of our products an excess of ⁴236,000,000 above the exports we receive from them; and as those countries with which we trade cannot pay us in goods, they must make

¹ £31,600,000

³ £11,120,000

² £42,720,000

⁴ £9,440,000

their return in gold and silver. This was the reason of the import of 1220,000,000 francs in coin in 1850, as shown in our official returns. So long as the system of protection is the ruling policy of France, so long will it be impossible to deprive gold of its value as money; to attempt it would be to withdraw from trade one of its most useful means of exchange. It would check, if not stop, all intercourse with those countries who can only pay in gold, or who can only sell us those commodities which we endeavour to exclude by our tariffs. Gold flows naturally only to those countries where it is marketable; and it is only so where it is in use as coin as well as in commerce. A profit of half per thousand is sufficient in the present day to turn the current of the precious metals. This circumstance ought not to be lost sight of in the consideration of monetary legislation.

In fact, the change in the relative value of gold and silver, which was so strongly anticipated, appears anything but imminent; if any great change is now taking place, it appears rather to be that of a simultaneous depreciation in the value of both metals. Deep thinking persons are not content with expressing their fears; they are already providing themselves with the means of averting the evils which they anticipate. This is one of the causes which

have raised the value of railroad stocks, and of landed property; and this explains the comparative abandonment, not of speculation, but of capital ordinarily seeking investment in government stocks. Alarm is felt at placing money on security, of which both the capital and the interest may remain at a fixed value; these may be the more sensibly affected, if the value of the precious metals is altered; whereas the shareholder of a railroad would have a chance of having his income increased; and the landed proprietors that of having their capital augmented in the same proportion in which the value of money would be depreciated.

In dwelling on these facts, I have no idea of setting myself up as a prophet. I would confine myself to the wish to indicate some of the symptoms of the present position of these matters; the danger, if any exists, is certainly not very near at hand. We have already seen the use of bank notes in France increased to an extent which, owing to the stability of their value, has largely taken the place of specie. It is but reasonable to suppose, that the present abundance of gold and silver will make no greater disturbance within a short time, than has the great increase of paper money.

The influx of the precious metals has been, in a certain sense, a providential occurrence during the revolutionary state of Europe. Credit had either disappeared, or had at least become stagnant. Every-

where, amidst the tempest of the times, both past and prospective, business had been suspended, or carried on only for ready money. Affairs had assumed an aspect of a primitive state of exchange. An increase of metallic circulation might again restore confidence, and calm agitation. The average excess of money imported over that exported, which, before 1848, was not above ¹80,000,000 to 100,000,000 francs, amounted in 1848 and 1849 to nearly ²300,000,000 francs for each year. Specie in these times supplied the wants of trade, and maintained prices; but, in more easy times, when used not alone, but concurrently with paper money and bills of exchange, for the purposes of circulation, gold and silver would naturally be in use in proportion to the movements of trade. The reason why ³600,000,000 of francs in coin now encumbers the vaults of the Bank of France, is, because capital is only employed in the stock markets, and that the restoration of trade on a large scale is still confined to a sort of anticipation; but let the industry of the country experience a complete restoration of confidence in the future, and we shall soon see the metallic reserve of the bank diminish; and, as a natural consequence, our market will attract an import of the precious metals from abroad. In

¹ £3,200,000 to £400,000,000

² £12,000,000

³ £24,000,000

short, gold and silver will then be wanted; the state of trade will improve, and we shall have to seek for an increased supply.

Let us not then either despair or be too confident; the world is not entering on an Eldorado, nor is it on the eve of a state of ruin. Those who consider gold and silver as positive wealth, who confound an abundant supply of the precious metals with an abundance of capital, and who affirm that the gold imported from California must lower the rate of interest, should remember that the rate of interest is determined by the state of confidence, as well as by the general rule of the supply and demand for loanable capital, and that confidence depends upon the good order existing throughout the civilized world. California itself shows the delusion of such an idea—for there, where gold is strewing the land, interest has risen as high as from eight to ten per cent. per month. Those on the contrary, who, at the idea of the galleons seeking freights in the western continent, dream only of ruin and catastrophes—who anticipate that the day will arrive that the Bank of France will pay persons to take away her gold—should not forget that she sells it now without difficulty even at a small premium, and that this increased trade in gold has not hitherto ruined anybody.

PARIS, *August*, 1852.



**RETURN TO the circulation desk of any
University of California Library
or to the**

**NORTHERN REGIONAL LIBRARY FACILITY
Bldg. 400, Richmond Field Station
University of California
Richmond, CA 94804-4698**

**ALL BOOKS MAY BE RECALLED AFTER 7 DAYS
2-month loans may be renewed by calling
(510) 642-6753**

**1-year loans may be recharged by bringing books
to NRLF**

**Renewals and recharges may be made 4 days
prior to due date**

DUE AS STAMPED BELOW

JUN 30 1994

120584

HG 277

.F3

